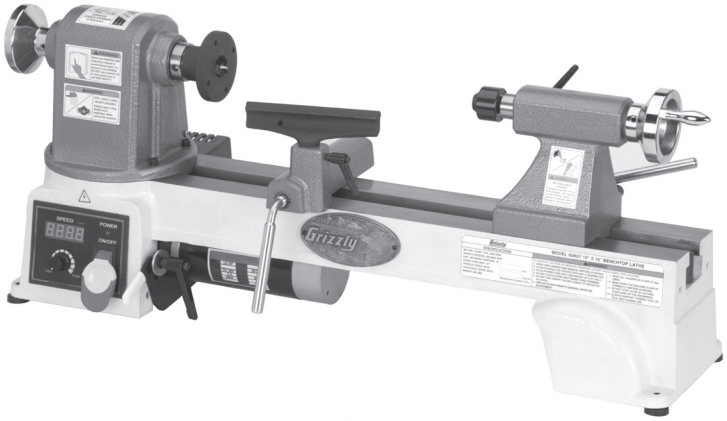
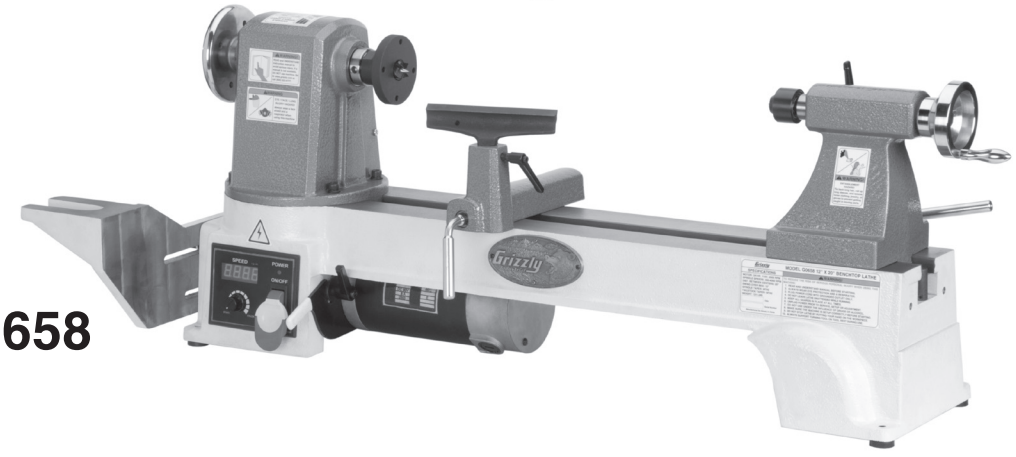
MODEL G0657/G0658
BENCHTOP LATHE
OWNER'S MANUAL



G0657



G0658

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WARNING: NO PORTION OF THIS MANUAL MAY BE REPRODUCED IN ANY SHAPE OR FORM WITHOUT THE WRITTEN APPROVAL OF GRIZZLY INDUSTRIAL, INC.
#JB10401 PRINTED IN CHINA

⚠ WARNING!

This manual provides critical safety instructions on the proper setup, operation, maintenance and service of this machine/equipment.

Failure to read, understand and follow the instructions given in this manual may result in serious personal injury, including amputation, electrocution or death.

The owner of this machine/equipment is solely responsible for its safe use. This responsibility includes but is not limited to proper installation in a safe environment, personnel training and usage authorization, proper inspection and maintenance, manual availability and comprehension, application of safety devices, blade/cutter integrity, and the usage of personal protective equipment.

The manufacturer will not be held liable for injury or property damage from negligence, improper training, machine modifications or misuse.

⚠ WARNING!

Some dust created by power sanding, sawing, grinding, drilling, and other construction activities contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are:

- **Lead from lead-based paints.**
- **Crystalline silica from bricks, cement and other masonry products.**
- **Arsenic and chromium from chemically-treated lumber.**

Your risk from these exposures varies, depending on how often you do this type of work. To reduce your exposure to these chemicals: Work in a well ventilated area, and work with approved safety equipment, such as those dust masks that are specially designed to filter out microscopic particles.

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INTRODUCTION

Foreword

We are proud to offer the G0657/G0658 Benchtop Lathe. This machine is part of a growing Grizzly family of fine woodworking machinery. When used according to the guidelines set forth in this manual, you can expect years of trouble-free, enjoyable operation and proof of Grizzly's commitment to customer satisfaction.

The specifications, drawings, and photographs illustrated in this manual represent the Model G0657/G0658 as supplied when the manual was prepared. However, owing to Grizzly's policy of continuous improvement, changes may be made at any time with no obligation on the part of Grizzly.

For your convenience, we always keep current Grizzly manuals available on our website at **www.grizzly.com**. Any updates to your machine will be reflected in these manuals as soon as they are complete.

Contact Info

If you have any comments regarding this manual, please write to us at the address below:

Grizzly Industrial, Inc.
C/O Technical Documentation Manager
P.O. Box 2069
Bellingham, WA 98227-2069
Email: manuals@grizzly.com

We stand behind our machines. If you have any service questions or parts requests, please call or write us at the location listed below.

Grizzly Industrial, Inc.
1203 Lycoming Mall Circle
Muncy, PA 17756
Phone: (570) 546-9663
Fax: (800) 438-5901
E-Mail: techsupport@grizzly.com
Web Site: http://www.grizzly.com

Functional Overview

A wood lathe is used to turn wood stock. The primary components of the wood lathe are the headstock, the tailstock, and the tool rest.

For most turning procedures, a round or nearly-round workpiece is clamped between the headstock spur center and the tailstock live center. The tool rest is positioned to provide stability to the chisel or other cutting tool while it is pressed into the workpiece. The lathe is turned **ON**, which causes the spindle to rotate. Pressing the cutting tool into the workpiece while it is turning cuts grooves around the circumference of the stock. Moving the cutting tool along the length of the workpiece allows the user to shape the workpiece into perfect cylinders, tapers, and intricate designs.

Another option is faceplate turning. Faceplate turning is be used to create plates, bowls, and other shallow or open-faced forms. In this method, the tailstock is moved completely out of the way and the workpiece is attached to the faceplate on the headstock. Again, the tool rest is positioned to provide support to the cutting tool. The outboard turning attachment on the Model G0658 provides the option for turning large workpieces without the lathe bed interfering with the operation.

Once a rough shape is created on the lathe, it can be sanded smooth by moving the tool rest out of the way and carefully sanding along the length of the workpiece while the lathe is rotating.

To allow for greater versatility, the spindle speed can be adjusted by repositioning the belt position in the head stock and by turning the speed adjustment knob on the control panel.

G0657/G0658 Identification

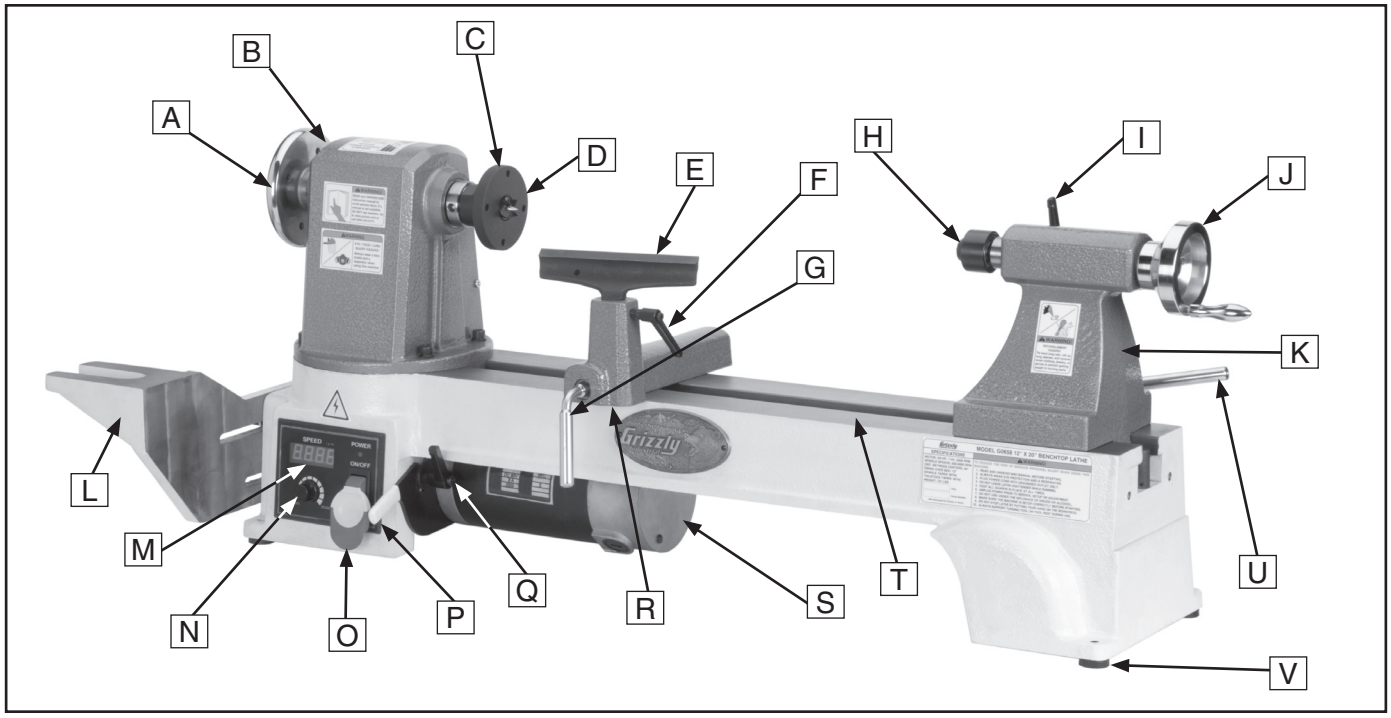

Figure 1. Model G0657/G0658 Identification.

A. Spindle Handwheel
B. Headstock
C. Faceplate
D. Spur Center
E. Tool Rest
F. Tool Rest Lock Handle
G. Tool Rest Base Release Lever
H. Live Center
I. Quill Lock Handle
J. Quill Handwheel
K. Tailstock
L. Outboard Tool Rest Mount (G0658 only)
M. Digital Speed Display
N. Speed Control Dial
O. ON/OFF Switch w/Disabling Key
P. Belt Tension Lever
Q. Belt Tension Lock Handle
R. Tool Rest Base
S. Motor
T. Lathe Bed
U. Tailstock Release Lever
V. Leveling Foot

MACHINE DATA SHEET

Customer Service #: (570) 546-9663 • To Order Call: (800) 523-4777 • Fax #: (800) 438-5901

MODEL G0657 10" X 16"
HEAVY DUTY BENCHTOP LATHE

Product Dimensions:

Weight	79 lbs.
Length/Width/Height	36" x 13½" x 12"
Foot Print (Length/Width)	7¾" x 31½"

Shipping Dimensions:

Type	Cardboard
Content	Machine
Weight	86 lbs.
Length/Width/Height	36" x 14" x 19"

Electrical:

Switch	Paddle Switch w/Disabling Key
Switch Voltage	110V
Cord Length	6 ft.
Cord Gauge	16 AWG
Recommended Circuit Breaker Size	15A
Plug	5-15

Motors:

Main

Type	Universal Brush Type
Horsepower	½ HP
Voltage	110V
Phase	Single
Amps	6A
Speed	2500 RPM
Cycle	60 Hz
Number Of Speeds	Variable
Power Transfer	Belt Drive
Bearings	Shielded and Lubricated

Main Specifications:

Construction

Swing Over Bed	10"
Swing Over Tool Rest	9⅝"
Distance Between Centers	16"
Spindle TPI	1" x 8 TPI RH
Outboard Spindle TPI	¾ x 16 TPI LH
Spindle Bore	0.433"
Spindle Taper	MT#2
Tailstock Taper	MT#2
Number of Spindle Speed Ranges	3
Spindle Speed Ranges	300-900, 600-1800, 1200-3600 RPM
Bed Width	7⅞"
Floor-to-Center Height	11½"
Faceplate Size	3.15"
Bed Construction	Cast Iron
Headstock Construction	Cast Iron and Steel
Tailstock Construction	Cast Iron and Steel

Other Specifications:

Country Of Origin	China
Warranty	1 Year
Serial Number Location	Data Label on Lathe Bed
Assembly Time	5 Minutes

MACHINE DATA SHEET

Customer Service #: (570) 546-9663 • To Order Call: (800) 523-4777 • Fax #: (800) 438-5901

MODEL G0658 12" X 20"
HEAVY DUTY BENCHTOP LATHE

Product Dimensions:

Weight	121 lbs.
Length/Width/Height	45½" x 15½" x 16"
Foot Print (Length/Width)	8½" x 35½"

Shipping Dimensions:

Type	Cardboard
Content	Machine
Weight	126 lbs.
Length/Width/Height	36" x 14" x 19"

Electrical:

Switch	Paddle Switch w/Disabling Key
Switch Voltage	110V
Cord Length	6 ft.
Cord Gauge	16 AWG
Recommended Circuit Breaker Size	15A
Plug	5-15

Motors:

Main

Type	Universal Brush Type
Horsepower	¾ HP
Voltage	110V
Phase	Single
Amps	8A
Speed	2500 RPM
Cycle	60 Hz
Number Of Speeds	Variable
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Faceplate Size	3.15"
Bed Construction	Cast Iron
Headstock Construction	Cast Iron and Steel
Tailstock Construction	Cast Iron and Steel

Other Specifications:

Country Of Origin	China
Warranty	1 Year
Serial Number Location	Data Label on Lathe Bed
Assembly Time	5 Minutes

SECTION 1: SAFETY

⚠WARNING

For Your Own Safety, Read Instruction Manual Before Operating this Machine

The purpose of safety symbols is to attract your attention to possible hazardous conditions. This manual uses a series of symbols and signal words intended to convey the level of importance of the safety messages. The progression of symbols is described below. Remember that safety messages by themselves do not eliminate danger and are not a substitute for proper accident prevention measures.

⚠DANGER **Indicates an imminently hazardous situation which, if not avoided, WILL result in death or serious injury.**

⚠WARNING **Indicates a potentially hazardous situation which, if not avoided, COULD result in death or serious injury.**

⚠CAUTION **Indicates a potentially hazardous situation which, if not avoided, MAY result in minor or moderate injury. It may also be used to alert against unsafe practices.**

NOTICE **This symbol is used to alert the user to useful information about proper operation of the machine.**

⚠WARNING

Safety Instructions for Machinery

1. **READ THE ENTIRE MANUAL BEFORE STARTING MACHINERY.** Machinery presents serious injury hazards to untrained users.
2. **ALWAYS USE ANSI APPROVED SAFETY GLASSES WHEN OPERATING MACHINERY.** Everyday eyeglasses only have impact resistant lenses—they are NOT safety glasses.
3. **ALWAYS WEAR A NIOSH APPROVED RESPIRATOR WHEN OPERATING MACHINERY THAT PRODUCES DUST.** Most types of dust (wood, metal, etc.) can cause severe respiratory illnesses.
4. **ALWAYS USE HEARING PROTECTION WHEN OPERATING MACHINERY.** Machinery noise can cause permanent hearing loss.
5. **WEAR PROPER APPAREL.** DO NOT wear loose clothing, gloves, neckties, rings, or jewelry that can catch in moving parts. Wear protective hair covering to contain long hair and wear non-slip footwear.
6. **NEVER OPERATE MACHINERY WHEN TIRED OR UNDER THE INFLUENCE OF DRUGS OR ALCOHOL.** Be mentally alert at all times when running machinery.

⚠WARNING
Safety Instructions for Machinery

7. **ONLY ALLOW TRAINED AND PROPERLY SUPERVISED PERSONNEL TO OPERATE MACHINERY.** Make sure operation instructions are safe and clearly understood.

8. **KEEP CHILDREN AND VISITORS AWAY.** Keep all children and visitors a safe distance from the work area.

9. **MAKE WORKSHOP CHILDPROOF.** Use padlocks, master switches, and remove start switch keys.

10. **NEVER LEAVE WHEN MACHINE IS RUNNING.** Turn power ***OFF*** and allow all moving parts to come to a complete stop before leaving machine unattended.

11. **DO NOT USE IN DANGEROUS ENVIRONMENTS.** DO NOT use machinery in damp, wet locations, or where any flammable or noxious fumes may exist.

12. **KEEP WORK AREA CLEAN AND WELL LIGHTED.** Clutter and dark shadows may cause accidents.

13. **USE A GROUNDED EXTENSION CORD RATED FOR THE MACHINE AMPERAGE.** Grounded cords minimize shock hazards. Undersized cords create excessive heat. Always replace damaged extension cords.

14. **ALWAYS DISCONNECT FROM POWER SOURCE BEFORE SERVICING MACHINERY**. Make sure switch is in OFF position before reconnecting.

15. **MAINTAIN MACHINERY WITH CARE.** Keep blades sharp and clean for best and safest performance. Follow instructions for lubricating and changing accessories.

16. **MAKE SURE GUARDS ARE IN PLACE AND WORK CORRECTLY BEFORE USING MACHINERY.**

17. **REMOVE ADJUSTING KEYS AND WRENCHES.** Make a habit of checking for keys and adjusting wrenches before turning machinery ***ON***.

18. **CHECK FOR DAMAGED PARTS BEFORE USING MACHINERY.** Check for binding or misaligned parts, broken parts, loose bolts, and any other conditions that may impair machine operation. Repair or replace damaged parts before operation.

19. **USE RECOMMENDED ACCESSORIES.** Refer to the instruction manual for recommended accessories. Improper accessories increase risk of injury.

20. **DO NOT FORCE MACHINERY.** Work at the speed for which the machine or accessory was designed.

21. **SECURE WORKPIECE.** Use clamps or a vise to hold the workpiece when practical. A secured workpiece protects your hands and frees both hands to operate the machine.

22. **DO NOT OVERREACH.** Maintain stability and balance at all times.

23. **MANY MACHINES CAN EJECT WORKPIECES TOWARD OPERATOR.** Know and avoid conditions that cause the workpiece to "kickback."

24. **ALWAYS LOCK MOBILE BASES (IF USED) BEFORE OPERATING MACHINERY**.

25. **CERTAIN DUST MAY BE HAZARDOUS** to the respiratory systems of people and animals, especially fine dust. Be aware of the type of dust you are exposed to and always wear a respirator designed to filter that type of dust.

⚠WARNING
Additional Safety for Wood Lathes

1. **KEEPING GUARDS IN PLACE.** Make sure all guards are in place and that the lathe sits on a flat, stable surface.

2. **EYE/FACE PROTECTION.** Always wear a face shield when operating the lathe.

3. **RESPIRATORY PROTECTION.** Always wear a respirator when using this machine. Wood dust may cause allergies or long-term respiratory health problems.

4. **MOUNTING WORKPIECE.** Before starting, be certain the workpiece has been properly imbedded on the headstock and tailstock centers and that there is adequate clearance for the full rotation.

5. **WORKPIECE CONDITION.** Always inspect the condition of your workpiece. DO NOT turn pieces with knots, splits, and other potentially dangerous conditions. Make sure joints of glued-up pieces have high quality bonds and won't fly apart during operation.

6. **ADJUSTING TOOL REST.** Adjust tool rest to provide proper support for the turning tool you will be using. Test tool rest clearance by rotating workpiece by hand before turning lathe ***ON***.

7. **TURNING SPEED.** Select the correct turning speed for your work, and allow the lathe to gain full speed before operating.

8. **USING SHARP CHISELS.** Keep lathe chisels properly sharpened and held firmly in position when turning.

9. **OPERATING DAMAGED LATHE.** Never operate the lathe with damaged or worn parts.

10. **ADJUSTMENTS/MAINTENANCE.** Make sure your wood lathe is turned ***OFF***, disconnected from its power source, and all moving parts have come to a complete stop before starting any inspection, adjustment, or maintenance procedure.

11. **STOPPING LATHE.** DO NOT stop the lathe by using your hand against the workpiece. Allow the lathe to stop on its own.

12. **AVOIDING ENTANGLEMENT.** Keep long hair and loose clothing articles such as sleeves, belts, and jewelry items away from the lathe spindle.

13. **FACEPLATE TURNING.** When faceplate turning, use lathe chisels on the downward spinning side of the workpiece only.

14. **SANDING/POLISHING.** Remove the tool rest before performing sanding or polishing operations.

15. **MATERIAL REMOVAL RATE.** Removing too much material at once may cause workpiece to fly out of the lathe.

16. **REDUCING WORKPIECE VIBRATION**. If the workpiece vibrates, immediately turn the lathe ***OFF***. Check to make sure the workpiece is centered and balanced. Trim excess waste off corners with a bandsaw or table saw to reduce vibration. Make sure workpiece is securely attached in setup.

⚠WARNING

Like all machinery there is potential danger when operating this machine. Accidents are frequently caused by lack of familiarity or failure to pay attention. Use this machine with respect and caution to lessen the possibility of operator injury. If normal safety precautions are overlooked or ignored, serious personal injury may occur.

⚠CAUTION

No list of safety guidelines can be complete. Every shop environment is different. Always consider safety first, as it applies to your individual working conditions. Use this and other machinery with caution and respect. Failure to do so could result in serious personal injury, damage to equipment, or poor work results.

SECTION 2: CIRCUIT REQUIREMENTS

110V Operation

⚠WARNING

Serious personal injury could occur if you connect the machine to the power source before you have completed the set up process. DO NOT connect the machine to the power source until instructed to do so.

Amperage Draw

The Model G0657/G0658 motors draw the following amps under maximum load:

G0657 Motor Draw.....6 Amps
G0658 Motor Draw.....8 Amps

Power Supply Circuit Requirements

We recommend connecting your machine to a dedicated and grounded circuit that is rated for the amperage given below. Never replace a circuit breaker on an existing circuit with one of higher amperage without consulting a qualified electrician to ensure compliance with wiring codes. **If you are unsure about the wiring codes in your area or you plan to connect your machine to a shared circuit, consult a qualified electrician.**

Minimum 110V Circuit Size.....15 Amps

Plug/Receptacle Type

Included Plug Type.....NEMA 5-15

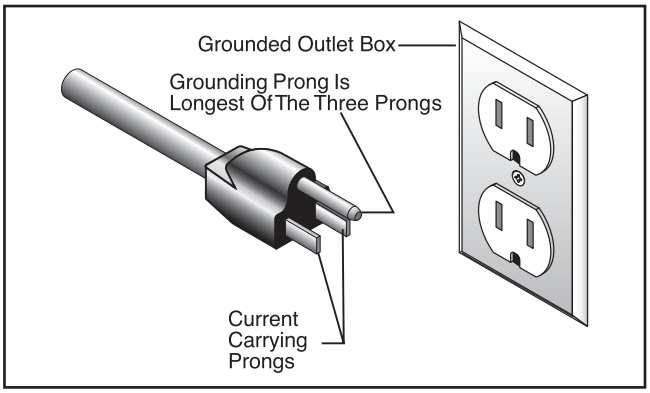
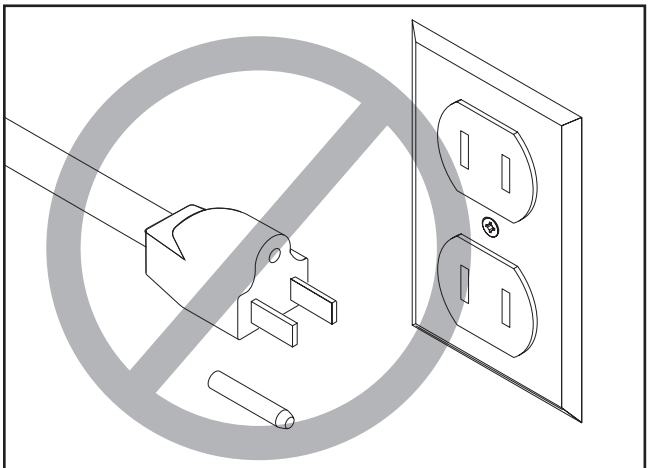


Figure 2. Typical type 5-15 plug and receptacle.

⚠WARNING

Electrocution or fire could result if this machine is not grounded correctly or if your electrical configuration does not comply with local and state codes. Ensure compliance by checking with a qualified electrician!



⚠CAUTION

This machine must have a ground prong in the plug to ground it. DO NOT remove ground prong from plug to fit into a two-pronged outlet! If the plug will not fit the outlet, have the proper outlet installed by a qualified electrician.

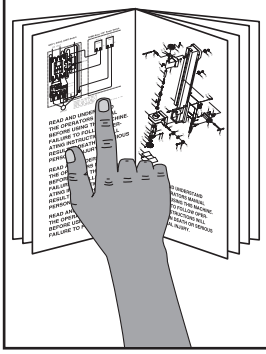
Extension Cords

We do not recommend the use of extension cords, but if you find it absolutely necessary:

- Use at least a 14 gauge cord that does not exceed 50 feet in length!
- The extension cord must also contain a ground wire and plug pin.
- A qualified electrician MUST size cords over 50 feet long to prevent motor damage.

SECTION 3: SETUP

Setup Safety



⚠WARNING

This machine presents serious injury hazards to untrained users. Read through this entire manual to become familiar with the controls and operations before starting the machine!

⚠WARNING

Wear safety glasses during the entire setup process!

⚠WARNING

The Model G0657/G0658 is a heavy machine. DO NOT over-exert yourself while unpacking or moving your machine—get assistance.

Unpacking

The Model G0657/G0658 was carefully packed when it left our warehouse. If you discover the machine is damaged after you have signed for delivery, *please immediately call Customer Service at (570) 546-9663 for advice.*

Save the containers and all packing materials for possible inspection by the carrier or its agent. *Otherwise, filing a freight claim can be difficult.*

When you are completely satisfied with the condition of your shipment, inventory the contents.

Inventory

Box Contents: (**Figure 3**)	**Qty**
A. Benchtop Lathe (Not Shown)	1
B. Knockout Bar	1
C. Safety Glasses	1
D. Spur Center MT#2	1
E. Live Center MT#2	1
F. Hex Wrenches 3, 5, 6mm	1 Each

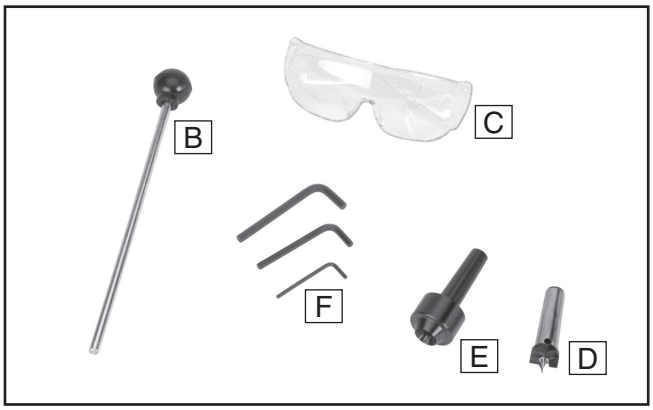


Figure 3. Box contents.

Additional Contents (G0658 only):	**Qty**
G. Flat Washers ⅜"	3
H. Lock Handles	3
I. Outboard Turning Attachment	1

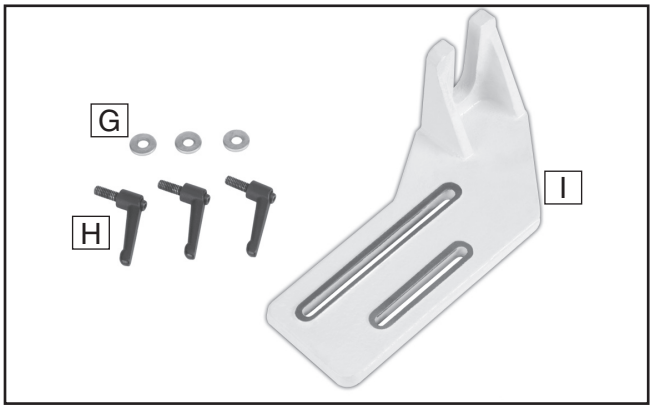


Figure 4. Additional contents (G0658 only).

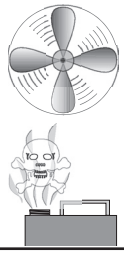
If any nonproprietary parts are missing (e.g. a nut or a washer), we will gladly replace them, or for the sake of expediency, replacements can be obtained at your local hardware store.

Clean Up

The unpainted surfaces are coated with a waxy oil to prevent corrosion during shipment. Remove this protective coating with a solvent cleaner or degreaser shown in **Figure 5**. For thorough cleaning, some parts must be removed. **For optimum performance from your machine, clean all moving parts or sliding contact surfaces.** Avoid chlorine-based solvents, such as acetone or brake parts cleaner that may damage painted surfaces. Always follow the manufacturer's instructions when using any type of cleaning product.

⚠WARNING

Gasoline and petroleum products have low flash points and can explode or cause fire if used to clean machinery. DO NOT use these products to clean the machinery.



⚠CAUTION

Many cleaning solvents are toxic if inhaled. Minimize your risk by only using these products in a well ventilated area.

G2544—Solvent Cleaner & Degreaser
A great product for removing the waxy shipping grease from your machine during clean up.

Figure 5. Cleaner/degreaser available from Grizzly.

Site Considerations

Workbench Load

Refer to the **Machine Data Sheet** for the weight and footprint specifications of your machine. Some workbenches may require additional reinforcement to support both the machine and the workpiece.

Placement Location

Consider existing and anticipated needs, size of material to be processed through each machine, and space for auxiliary stands, work tables or other machinery when establishing a location for your new machine. See **Figure 6** for the minimum working clearances.

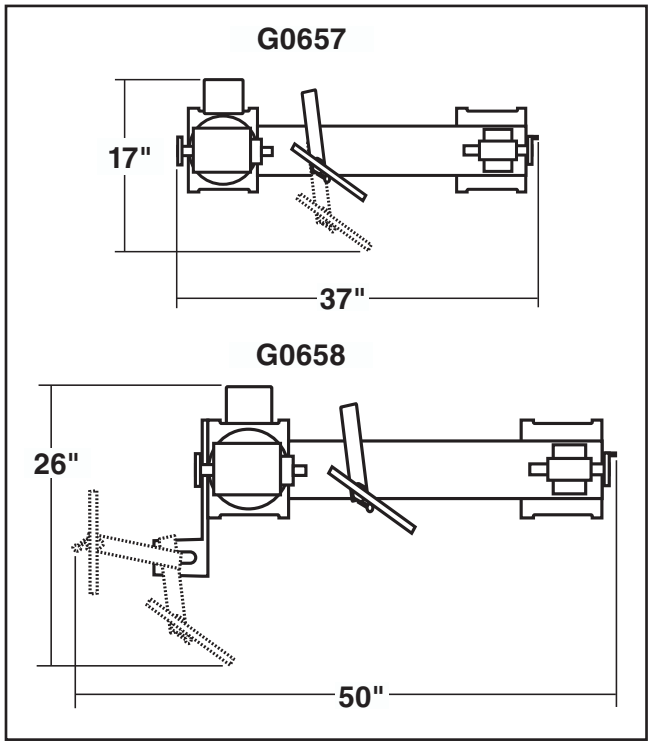
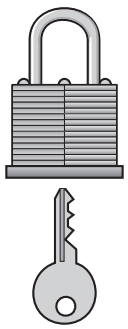


Figure 6. Minimum working clearances.



⚠CAUTION

Children and visitors may be seriously injured if unsupervised. Lock all entrances to the shop when you are away. DO NOT allow unsupervised children or visitors in your shop at any time!

Mounting

Once you have confirmed that your machine is running properly, you may decide to mount it to a workbench. Simply remove the adjustable feet and mount it through the holes in the base.

The strongest mounting option is a "Through Mount" where holes are drilled all the way through the workbench, and hex bolts, washers, and hex nuts are used to secure the drill press to the workbench.

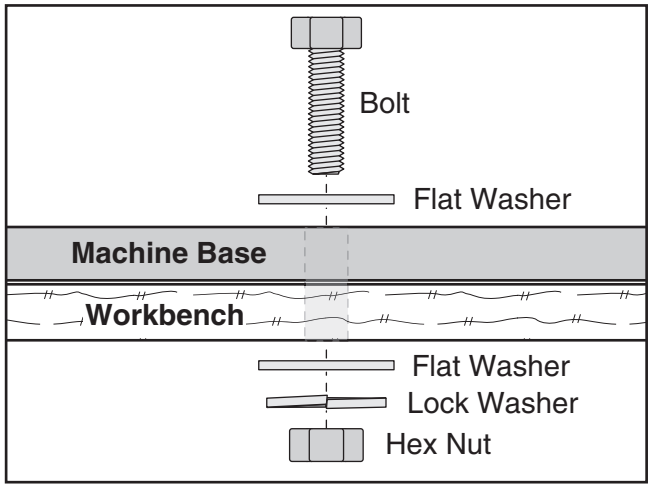


Figure 7. Example of a through mount setup.

Another option for mounting is a "Direct Mount" where the machine is simply secured to the workbench with a lag screw.

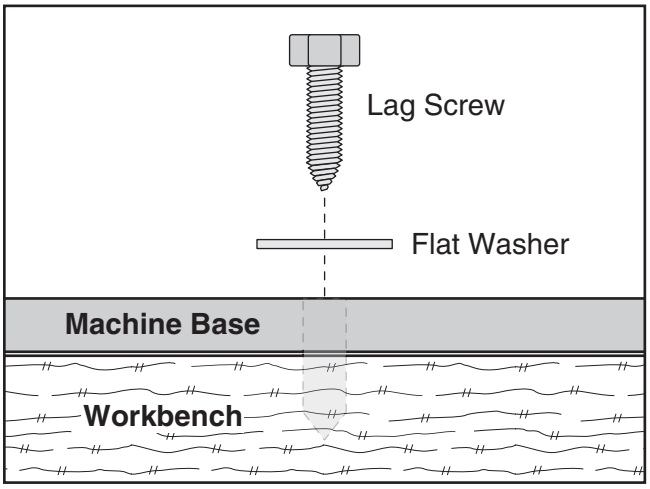


Figure 8. Example of a direct mount setup.

Whichever method you choose, it is crucial that the workbence is perfectly flat. Mounting the lathe to a surface that is not flat may cause the lathe bed to warp. Make sure all four corners are sitting firmly on the workbench and, if necessary, use shims to level the lathe and prior to mounting.

Do not overtighten the mounting fasteners as this may crack the cast iron feet.

Setup

Before use, the tool rest must be moved out of its shipping position and centers must be inserted. For the Model G0658, installing the outboard turning attachment is an optional step.

To prepare the lathe:

1. Loosen the release lever and rotate the tool rest base away from the lathe bed.

2. Loosen the tool rest lock handle and rotate the tool rest so that it is positioned parallel to the lathe bed (**Figure 9**).

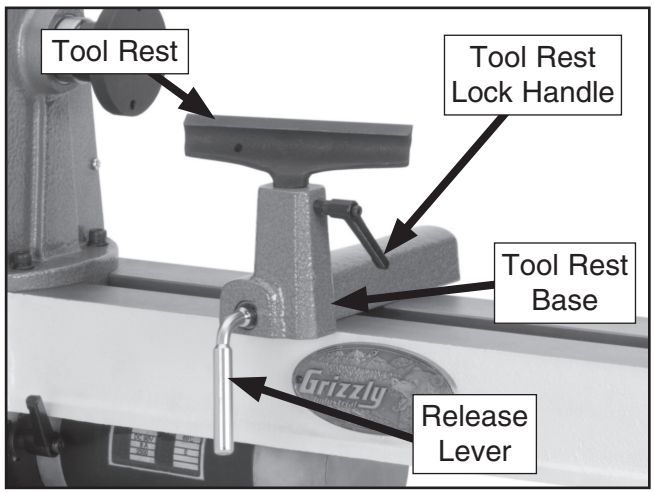


Figure 9. Tool rest positioned.

3. Tighten the tool rest lock handle.

4. To insert the centers, refer to **Installing/ Removing Spur Center** and **Installing/ Removing Live Center** on **Page 21**.

To install the outboard turning attachment (Model G0658 only):

1. Insert one of the lock handles through the upper slot in the outboard turning attachment, as shown in **Figure 10.**

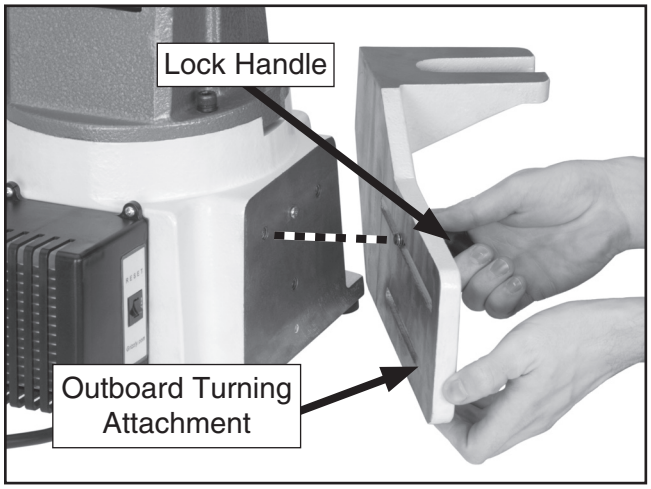


Figure 10. Positioning Handle

2. Line up the threaded portion of the handle with one of the holes in the lathe base, then thread the handle into the hole. Do not yet fully tighten the handle.

3. Tilt the outboard turning attachment as necessary so the slots line up with the other two holes in the lathe base, then thread in the other two handles.

4. Firmly tighten the handles to secure the outboard turning attachment in position (**Figure 11**).

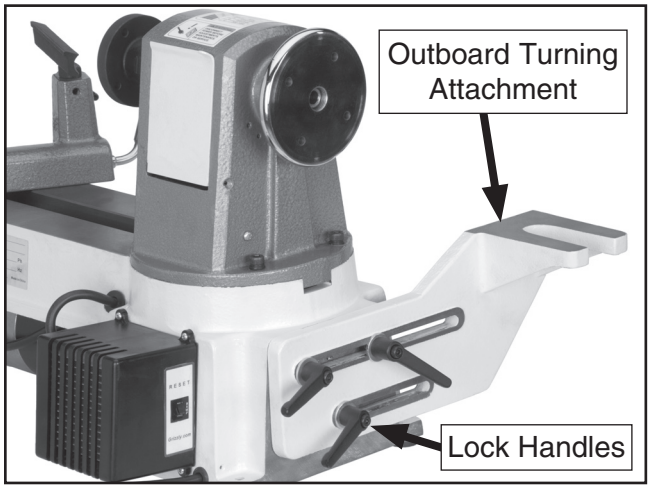


Figure 11. Outboard Turning Attachment

Test Run

Once the setup is complete, test run your machine to make sure it runs properly and is ready for regular operation.

The test run consists of verifying the following: 1) The motor powers up and runs correctly, and 2) the safety disabling mechanism on the switch works correctly.

If, during the test run, you cannot easily locate the source of an unusual noise or vibration, stop using the machine immediately, then review **Troubleshooting** on **Page 30**.

If you still cannot remedy a problem, contact our Tech Support at (570) 546-9663 for assistance.

To test run the machine:

1. Make sure you have read the safety instructions at the beginning of the manual and that the machine is setup properly.

2. Make sure all tools and objects used during setup are cleared away from the machine.

3. Connect the machine to the power source.

4. Verify that the machine is operating correctly by turning the machine ***ON***.

—When operating correctly, the machine runs smoothly with little or no vibration or rubbing noises.

—Investigate and correct strange or unusual noises or vibrations before operating the machine further. Always disconnect the machine from power when investigating or correcting potential problems.

5. Turn the machine ***OFF***.

6. Remove the switch disabling key, as shown in **Figure 12**.

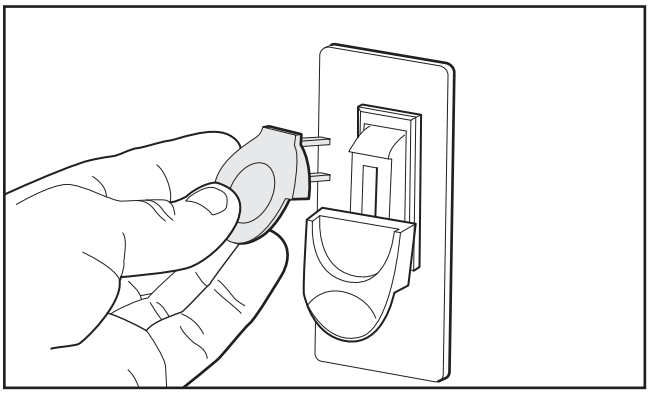


Figure 12. Removing switch key from paddle switch.

7. Try to turn the start the machine with the paddle switch.

—If the machine does not start, the switch disabling feature is working as designed.

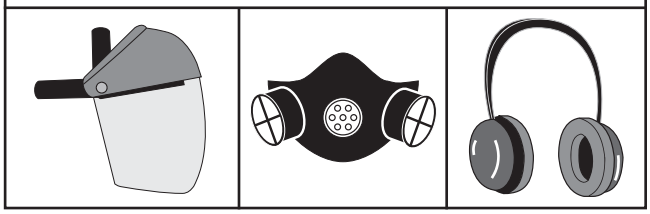
—If the machine starts, immediately stop the machine. The switch disabling feature is not working correctly. This safety feature must work properly before proceeding with regular operations. Call Tech Support for help.

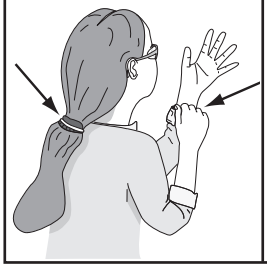
SECTION 4: OPERATIONS

Operation Safety

⚠WARNING

Damage to your eyes, lungs, and ears could result from using this machine without proper protective gear. Always wear a face shield, respirator, and hearing protection when operating this machine.





⚠WARNING

Loose hair and clothing could get caught in machinery and cause serious personal injury. Keep loose clothing and long hair away from moving machinery.

NOTICE

If you have never used this type of machine or equipment before, WE STRONGLY RECOMMEND that you read books, trade magazines, or get formal training before beginning any projects. Regardless of the content in this section, Grizzly Industrial will not be held liable for accidents caused by lack of training.

Basic Controls

Use the descriptions and figures below to become familiar with the basic controls of your lathe.

Lathe ON/OFF Switch: Turns power ON/OFF to the lathe motor, which rotates the spindle.

Speed Adjust Knob: Adjusts the speed of the spindle within the current belt position speed range.

RPM Display: Displays the spindle speed in revolutions per minute (RPM).

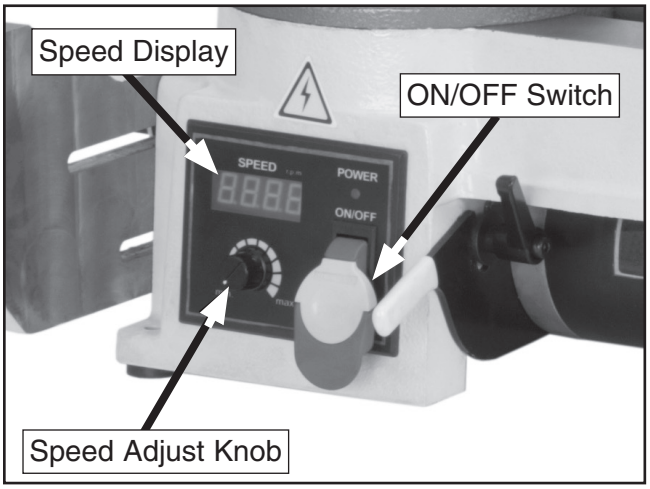


Figure 13. Control Panel.

Tool Rest: Provides a stable resting position for turning tools.

Tool Rest Lock Handle: Locks the tool rest in position relative to the tool rest base.

Base Release Lever: Releases the tool rest base and allows it to be repositioned along the lathe bed.

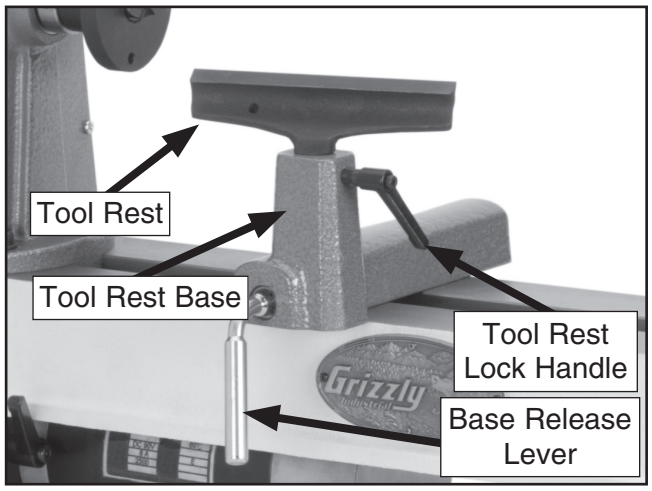


Figure 14. Tool Rest Controls.

Quill Handwheel: Moves the quill in and out to allow the clamping or releasing of the workpiece.

Quill Lock Handle: Locks the quill in place to prevent loosening during operation of the lathe.

Tailstock Release Lever: Releases the tailstock to allow quick position adjustments.

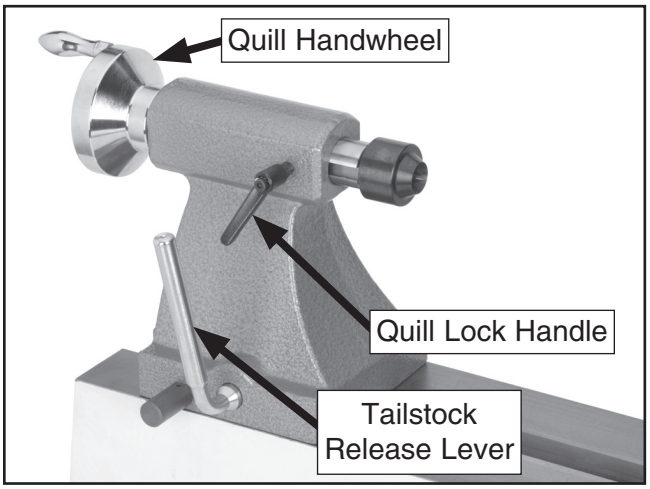


Figure 15. Tailstock Controls.

Changing Speed Ranges

The variable speed motors on the Model G0657 and G0658 allow the spindle speed to vary within three separate ranges. For greater speed variations, the belt in the headstock can be repositioned. A label on the top of the headstock illustrates the belt positions and their speeds.

To change speeds:

1. DISCONNECT LATHE FROM POWER!

2. Loosen the belt tension screw handle (**Figure 16**). Be sure the belt tension lever moves freely to release tension from the belt.

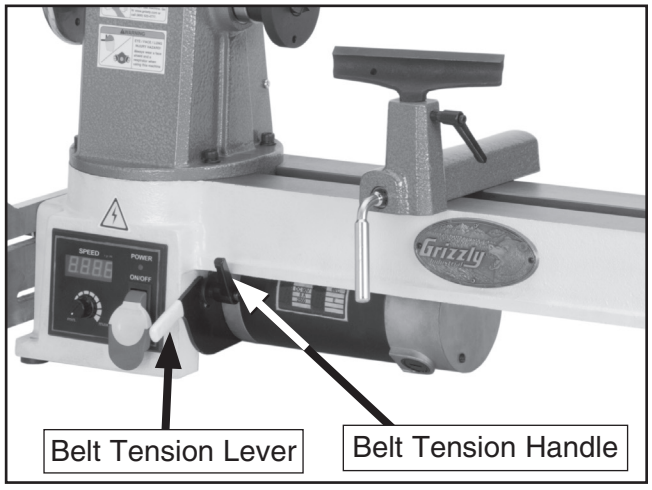


Figure 16. Belt tension lever.

3. Open the rear access covers (**Figure 17**).

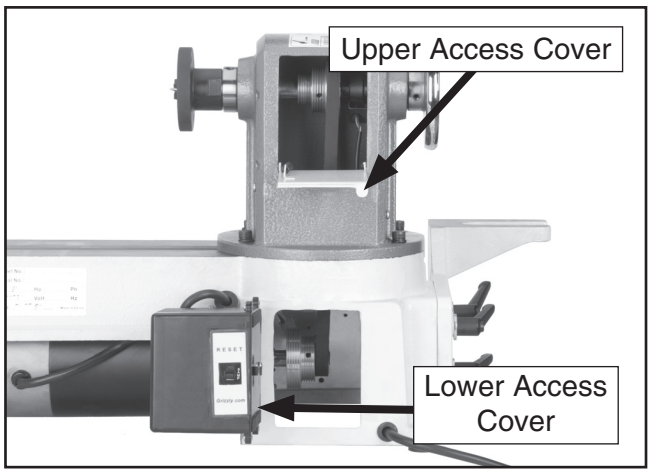
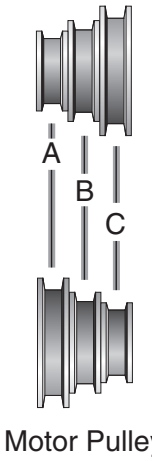


Figure 17. Side and rear access covers.

4. Locate the desired speed on the speed chart on the rear of the lathe bed, and move the belt to the necessary grooves on the motor and spindle pulleys.

   For Example: As indicated in the speed chart, on the **G0657,** belt position **B** creates an RPM range of **600-1800** (**Figure 18**).



G0657

POSITION	RPM RANGE
A	1200-3600
B	600-1800
C	300-900

G0658

POSITION	RPM RANGE
A	1200-4000
B	600-2000
C	300-1000

Figure 18. G0658 Spindle speeds.

5. Move the belt tension lever down, adjusting tension so that when the belt is pressed with moderate force, ½" of belt deflection is measured as shown in **Figure 19**, then tighten belt tension lever screw.

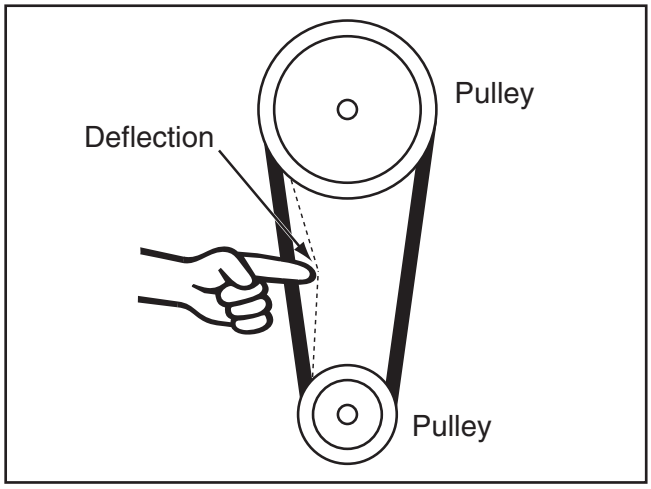


Figure 19. Belt deflection.

6. Close the rear covers.

Adjusting Tailstock

The tailstock is equipped with a cam-action clamping system to secure it to the lathe bed. When the lever is engaged, a locking plate lifts and secures the tailstock to the bed.

To position the tailstock along the bed:

1. Loosen the release lever and move the tailstock to the desired position (**Figure 20**).

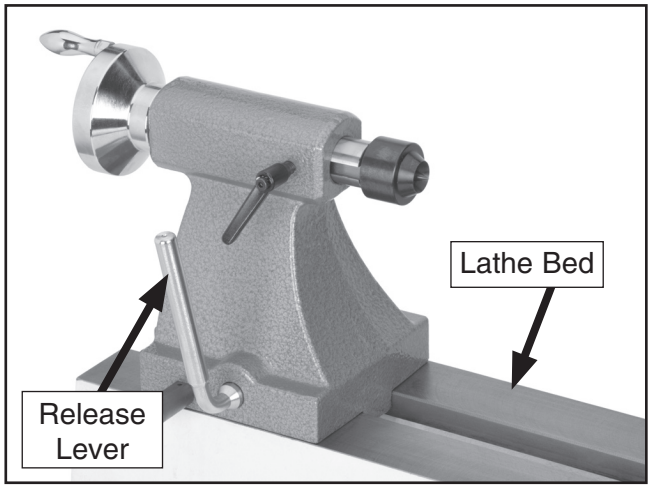


Figure 20. Tailstock controls.

2. Re-engage the release lever.

   —If the release lever will not lock or release the tailstock (either too loose or too tight), loosen or tighten the tailstock mounting nut (located on the underside of the tailstock) in small increments as needed to achieve the proper clamping pressure (**Figure 21**).

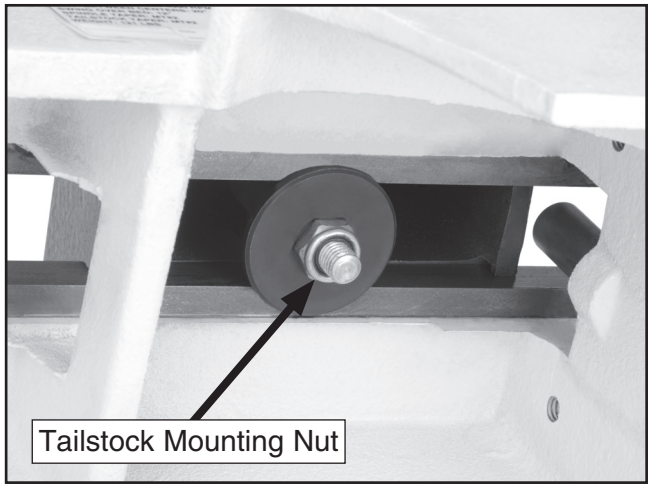


Figure 21. Release lever adjustment.

Adjusting Tool Rest

The tool rest base is equipped with a cam-action clamping system to secure it to the lathe bed. When the lever is engaged, a locking plate lifts up and secures the tool rest base to the bed.

To position the tool rest base along the bed:

1. Loosen the release lever and slide the tool rest base along the bed (**Figure 22**).

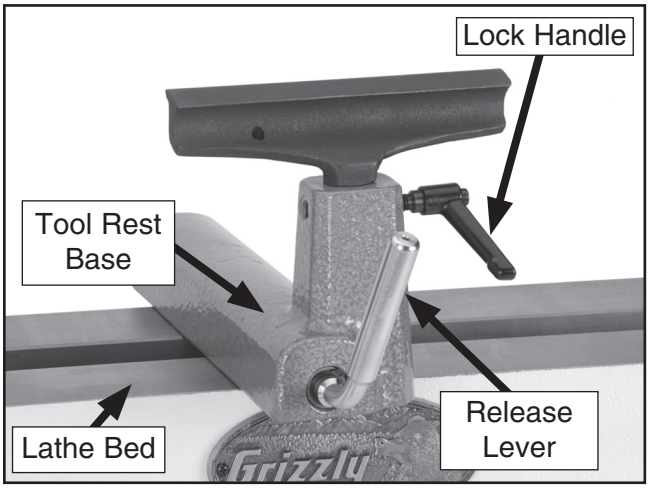


Figure 22. Tool rest controls.

2. Re-engage the release lever to lock the tool rest base in place.

   —If the release lever will not lock or release (either too loose or too tight), then loosen or tighten the tool rest base mounting nut (located on the underside of the tool rest base) in small increments as needed to achieve the proper clamping pressure. Refer to **Figure 21**.

To adjust the tool rest:

1. Loosen the lock handle (**Figure 22**) and adjust the tool rest vertically and/or swivel it as needed, then tighten the lock handle.

Installing/Removing Spur Center

The spur center installs into the headstock spindle with a taper fit.

To install the spur center:

1. DISCONNECT LATHE FROM POWER!

2. Insert the tapered end of the center into the spindle, and push it in quickly and firmly (**Figure 23**).

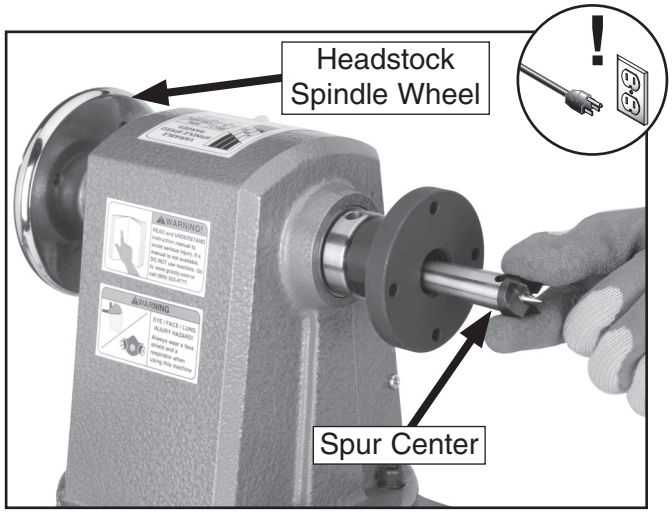


Figure 23. Inserting spur center into spindle.

3. Check that the center is securely installed by giving it a quick tug. (A properly installed center will not pull out by hand.)

To remove the spur center:

1. DISCONNECT LATHE FROM POWER!

2. Insert the knockout rod into the outboard end of the spindle. Use a shop rag or wear a glove to catch the center and gently tap the rod handle until the spur center is freed from the spindle (**Figure 24**).

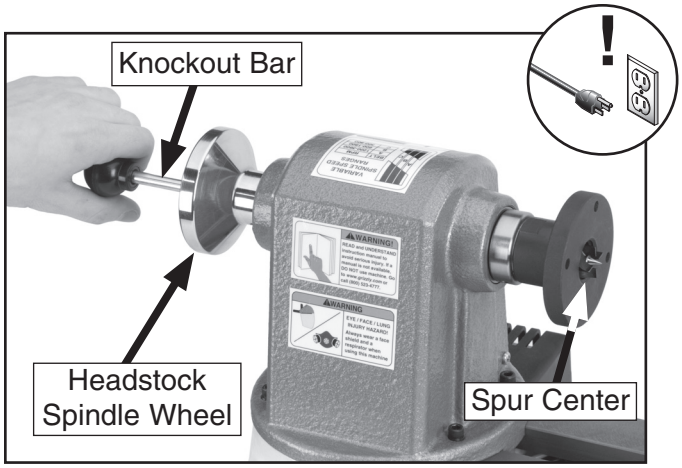


Figure 24. Removing spur center.

Installing/Removing Live Center

To install the live center:

1. Loosen the quill lock handle (if locked) approximately half a turn counterclockwise.

2. Rotate the quill handwheel clockwise until the tailstock quill protrudes out of the tailstock housing about ¾".

3. Insert the live center, as shown in **Figure 25**, and push firmly.

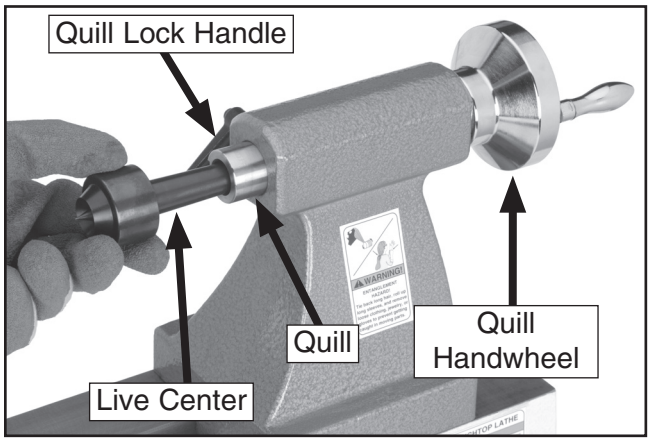


Figure 25. Live center installed in tailstock.

4. Tighten the quill lock handle.

To remove the live center:

1. Loosen the quill lock handle (if locked) approximately half a turn counterclockwise.

2. Turn the quill handwheel counterclockwise until the tailstock quill bottoms out, causing the live center to be forced out of the quill.

⚠WARNING

The tailstock quill lock handle must always be locked down while the lathe is in use. The workpiece can be thrown from the lathe if this step is not observed. Also, the tailstock quill should not protrude from the tailstock housing more than 2'' or the quill will not be supported enough. Failure to follow these warnings may result in personal injury.

Removing/Installing Faceplate

These instructions cover removing and installing the faceplate. To mount a workpiece to your faceplate, refer to **Faceplate Turning** on **Page 26**.

To remove the faceplate:

1. DISCONNECT LATHE FROM POWER!

2. Hold the headstock spindle wheel securely while turning the faceplate counterclockwise until it is removed. If the spur center is installed, it will be removed during this process.

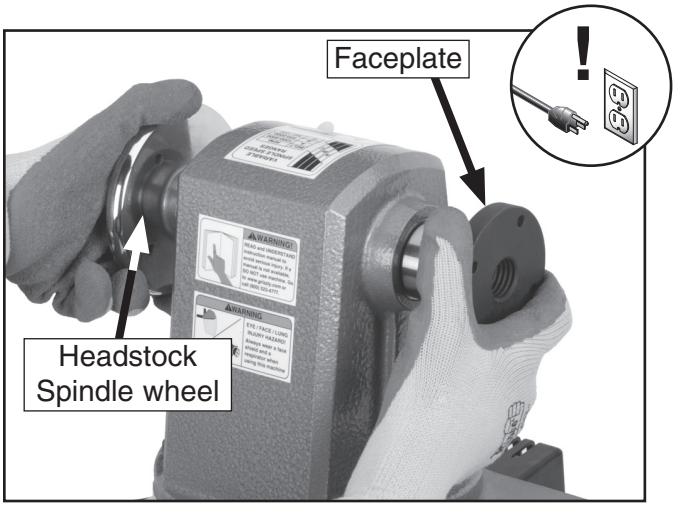


Figure 26. Removing faceplate.

To install the faceplate:

1. DISCONNECT LATHE FROM POWER!

2. Thread faceplate onto spindle shaft until it is secure against the shoulder on the spindle shaft.

Selecting Turning Tools

Lathe tools come in a variety of shapes and sizes and usually fall into five major categories.

- **Gouges**—Mainly used for rough cutting, detail cutting, and cove profiles. The rough gouge is a hollow, double-ground tool with a round nose, and the detail gouge is a hollow, double-ground tool with either a round or pointed nose. **Figure 27** shows an example of a gouge.

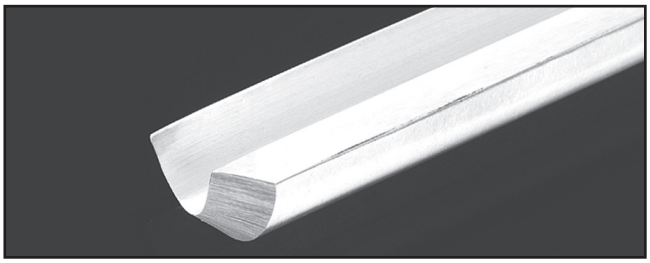


Figure 27. Gouge.

- **Skew Chisel**—A very versatile tool that can be used for planing, squaring, V-cutting, beading, and parting off. The skew chisel is flat, double-ground with one side higher than the other (usually at an angle of 20-40˚). **Figure 28** shows an example of a skew chisel.

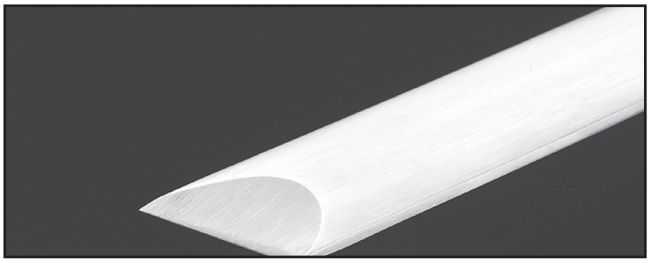


Figure 28. Skew chisel.

- **Scrapers**—Mainly used where access for other tools is limited, such as hollowing operations. This is a flat, double-ground tool that comes in a variety of profiles (Round Nose, Spear Point, Square Nose, etc.) to match many different contours. **Figure 29** shows an example of a round nose scraper.

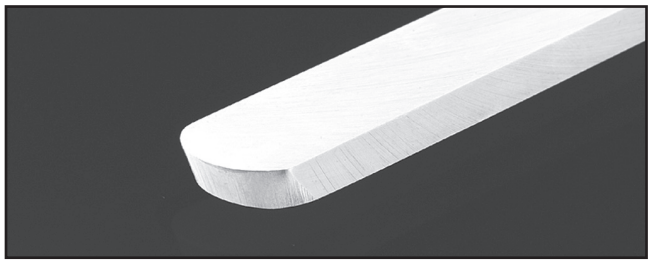


Figure 29. Round nose scraper.

- **Parting Tools**—Used for sizing and cutting off work. This is a flat tool with a sharp pointed nose that may be single- or double-ground. **Figure 30** shows an example of a parting tool.

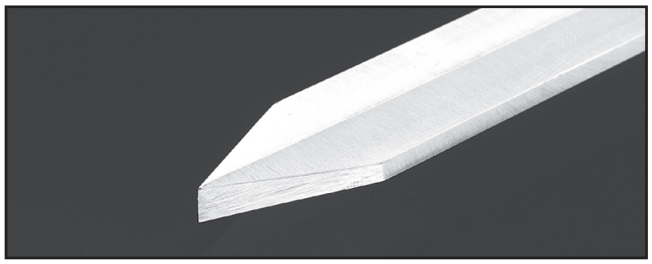


Figure 30. Parting tool.

- **Specialty Tools**—These are the unique, special function tools to aid in hollowing, bowl making, cutting profiles, etc. The Swan Neck Hollowing Tool shown on **Page 28** is a good example of a specialty tool.

Outboard Turning (G0658 Only)

The Model G0658 is equipped with a detachable outboard turning attachment. This provides additional clearance for a greater variety of turning tasks.

See **Setup** on **Page 12** for instructions on installing the outboard turning attachment.

To mount a workpiece to the spindle handweel for outboard turning, see **Faceplate Turning** on **Page 26**. The method for attaching a workpiece to the spindle is the same for both turning methods.

To place the tool rest on the outboard turning attachment:

1. DISCONNECT LATHE FROM POWER!

2. Prepare the outboard turning attachment by thoroughly cleaning it to remove debris or buildup.

3. Release the tool rest base release lever so the tool rest moves freely, then position the tool rest so the entire base sits on the lathe bed. This will prevent the tool rest from falling when the lock nut is removed (**Figure 31**).

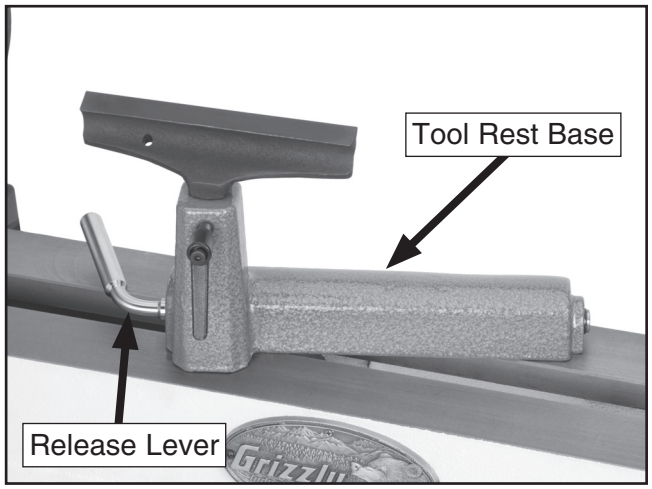


Figure 31. Safe tool rest position.

4. Loosen and remove the lock nut and clamp washer from beneath the tool rest base (**Figure 32**).

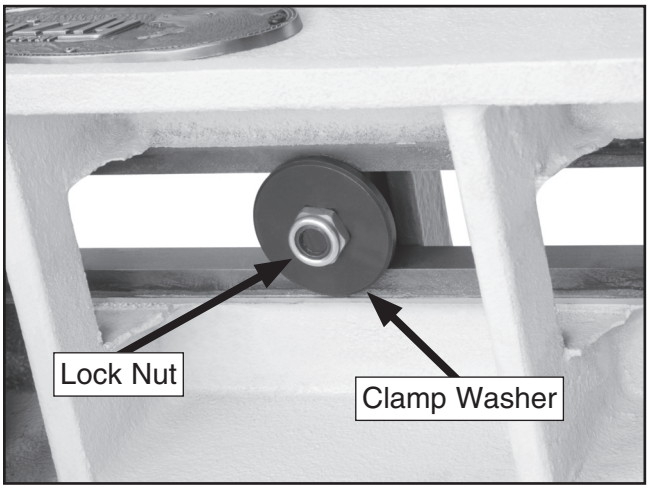


Figure 32. Lock nut and clamp washer location (viewed from beneath).

5. Lift the tool rest from the lathe bed and reposition it on the outboard turning attachment so that the clamp shaft protrudes through the gap in the outboard turning attachment (**Figure 33**).

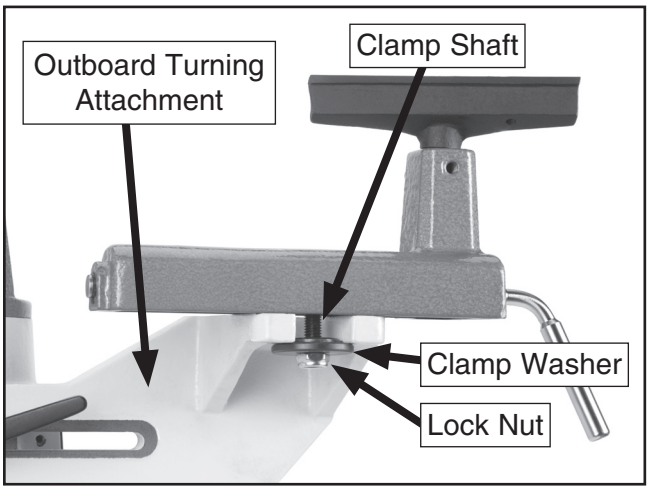


Figure 33. Outboard mounting.

6. Replace the clamp washer and lock located on the clamp shaft. Tighten the lock nut so the release handle will clamp the tool rest securely when locked but still allow easy movement when released.

Spindle Turning

Spindle turning (**Figure 34**) is the operation performed when a workpiece is mounted between the headstock and the tailstock.

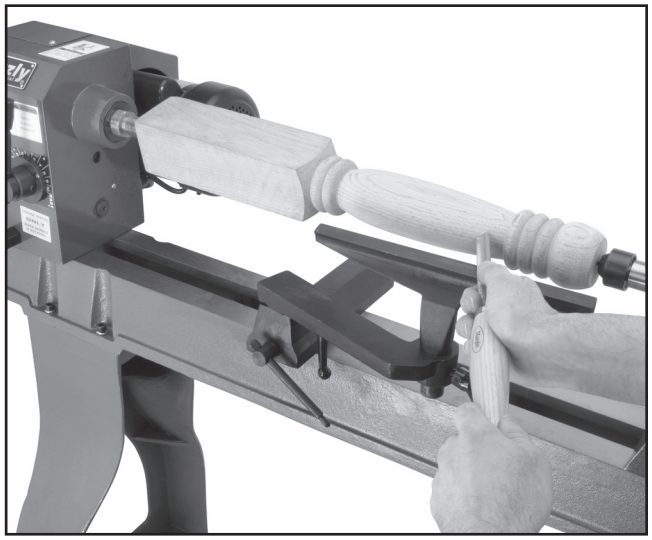


Figure 34. Typical spindle turning operation.

To set up a spindle turning operation:

1. Mark both ends of your workpiece by drawing diagonal lines from corner to corner. The intersection point of these lines will show you the center of your workpiece. See **Figure 35** for details.

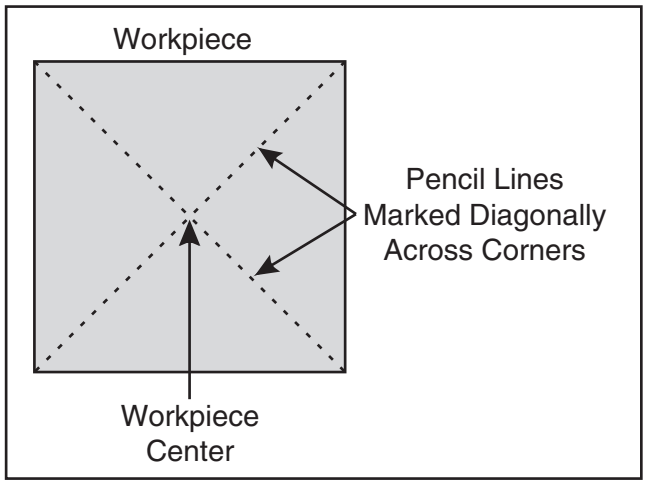


Figure 35. Workpiece marked diagonally from corner to corner to determine the center.

2. Using a wood mallet, tap the point of the spur center into the center of the workpiece, so that it leaves a center mark, then remove the spur center.

3. Using a ⅛" drill bit, drill a 3⁄16" deep hole at the center mark.

4. Cut the corners off your workpiece if it is over 2" x 2" to make turning safer and easier.

5. Drive the spur center into the center of the workpiece with a wood mallet to embed it at least ¼", as shown in **Figure 36**.

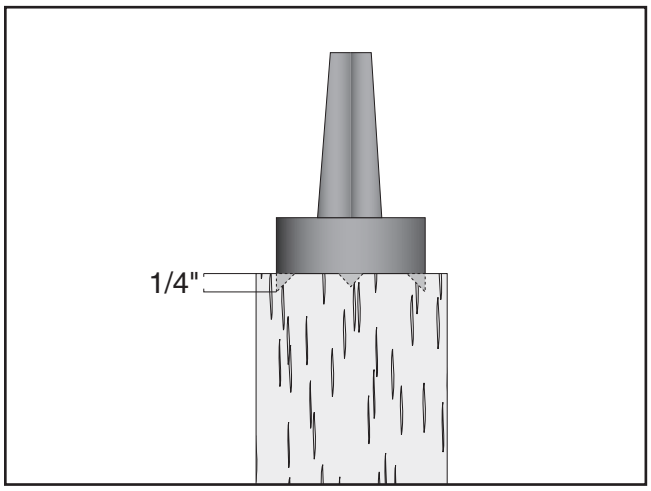


Figure 36. Spur center properly embedded.

6. With the workpiece still attached, insert the spur center into the headstock spindle.

7. With the live center installed in the tailstock, slide the tailstock toward the workpiece until the live center touches the workpiece centerpoint, then lock the tailstock in this position.

8. Use the quill handwheel to push the live center into the workpiece at least ¼".

⚠WARNING

Do not press the workpiece too firmly with the tailstock or the bearings will bind and overheat. Likewise, do not leave it too loose or the workpiece will spin off the lathe. Use good judgement. Serious personal injury could result if care is not taken.

9. Position the tool rest approximately ¼" away from the workpiece and approximately ⅛" above the center line, as shown in **Figure 37**.

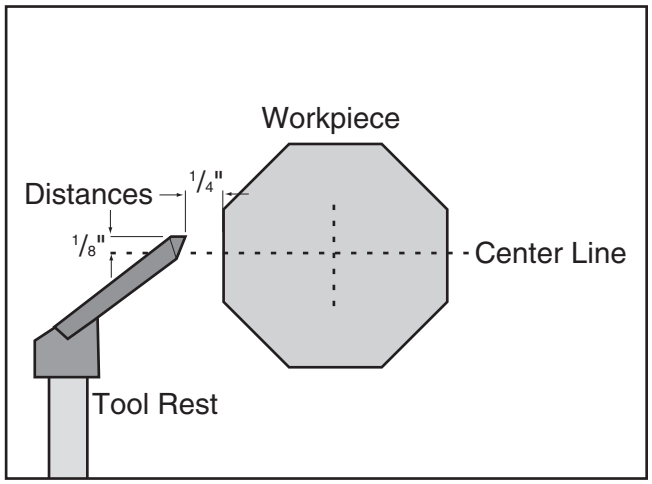


Figure 37. Tool rest position.

10. Test the setup by hand-turning the workpiece to make sure there is enough clearance all the way around before starting.

Spindle Turning Tips:

- When turning the lathe ***ON***, stand to the side of the spinning direction until the lathe reaches full speed and you can verify that the lathe will not throw the workpiece.
- Use the slowest spindle speed when rough cutting.
- Select the right speed for the size of workpiece you are turning. Use slower speeds for large workpieces (4" diameter and over); use the middle range speeds for medium sized workpieces (2" to 4" diameter); and use faster speeds for small sized workpieces (under 2" in diameter).
- Make sure the turning tool is against the tool rest the ENTIRE time that the turning tool is in contact with the workpiece.
- Learn the correct techniques for each tool you will use. If you are unsure, read books or magazines about lathe techniques and seek training from experienced users.
- Turn the lathe ***OFF*** immediately if the workpiece vibrates excessively. Check to make sure the workpiece is centered and balanced. Remove the workpiece and trim excess waste off corners with a bandsaw or table saw to reduce vibration. Make sure the workpiece is securely attached in the setup.

Faceplate Turning

Faceplate turning (**Figure 38**) is when a workpiece is mounted to the faceplate, which is mounted to the headstock spindle. This type of turning is usually done with open-faced workpieces like bowls.

If screws cannot be placed in the workpiece, then a backing block can be glued to the workpiece and attached to the faceplate with screws.

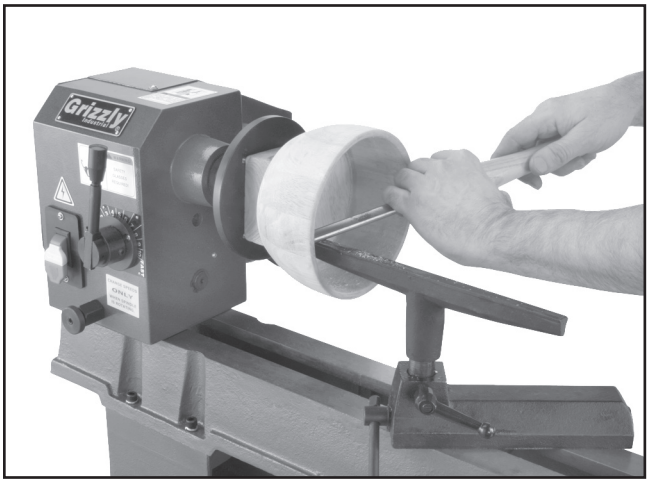


Figure 38. Typical faceplate turning operation.

To mount your workpiece to the faceplate:

1. Find the center of your workpiece in the same manner as when spindle turning.

2. Cut off the corners of the workpiece.

3. Center the faceplate on the workpiece and attach it through the faceplate holes with non-tapered head wood screws as shown in **Figure 39**.

4. Thread the faceplate onto the headstock spindle and tighten securely.

NOTICE: *Only use tap screws or wood screws with non-tapered heads (**Figure 39**) to attach the faceplate to the workpiece. Do NOT use drywall screws or screws with tapered heads because these can split the faceplate, or the screws may snap off during operation.*

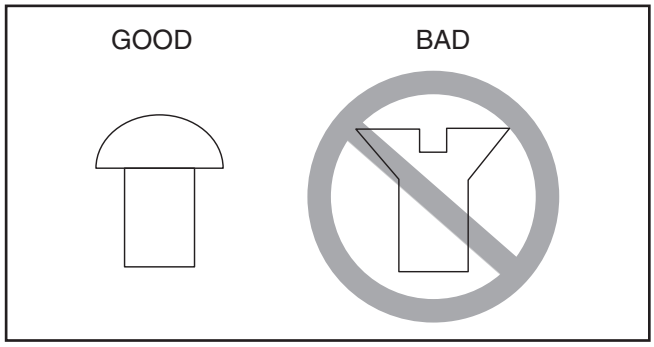


Figure 39. Correct and incorrect screw types for mounting faceplate to workpiece.

To mount your workpiece to a backing block:

1. Make the backing block (**Figure 40**) from a piece of scrap wood that is flat on both sides.

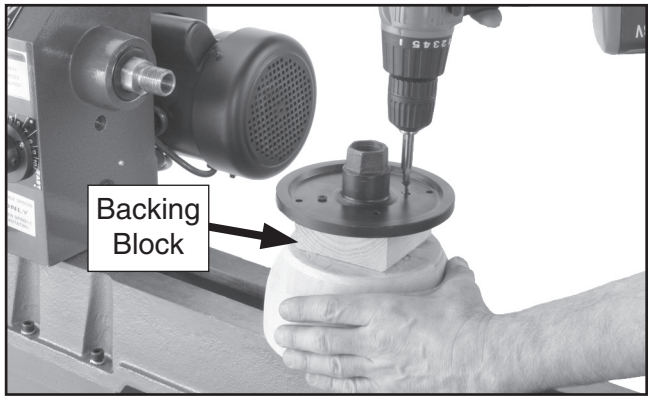


Figure 40. Example of mounting faceplate to a backing block.

2. Locate and mark the center of both the workpiece and the backing block.

3. Drill a ¼" diameter hole through the center of the backing block.

4. Glue the center of the backing block to the center of the workpiece (look through the drilled hole to line up centers), clamp the backing block to the workpiece, and wait for the glue to cure according to the manufacturer's recommendation.

Sanding/Finishing

After turning, the workpiece can be sanded, as shown in **Figure 41**, and finished (in the same manner) before removing it from the lathe.

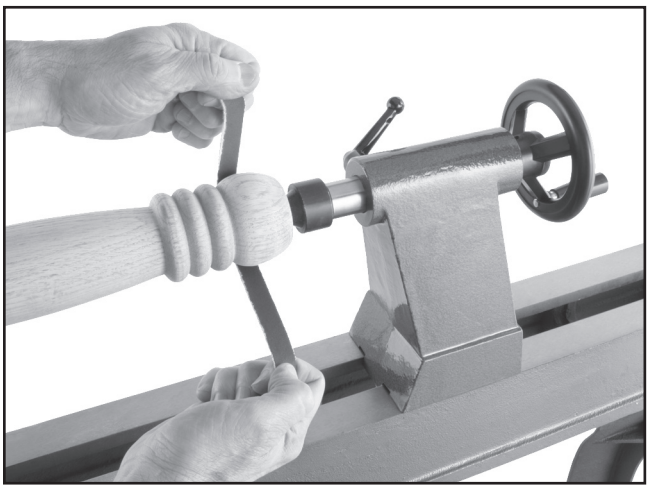
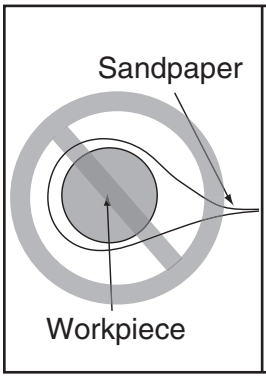


Figure 41. Typical sanding operation.



⚠CAUTION

Wrapping the sandpaper completely around the workpiece will pull your hands into the moving workpiece and may cause injury. Never wrap sandpaper completely around the workpiece!

Whenever sanding or finishing, move the tool rest holder out of the way to increase personal safety and gain adequate working room.

G1194—3-Jaw Chuck
A "must have" for the serious wood turner. This 3-jaw chuck is a self-centering style chuck used mostly for round work. All three jaws tighten together at the same time. Jaws are reversible for expanded work holding capacity. *Threaded insert required for mounting!*

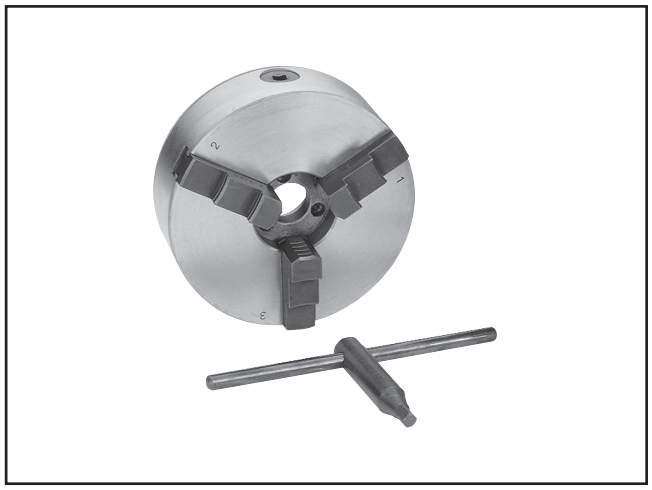


Figure 42. Model G1194 3-Jaw Chuck.

G1082—4-Jaw Chuck
Another "must have" for the serious wood turner. This 4-jaw chuck is an independent type chuck that is used for square and odd-shaped pieces. Each jaw tightens individually and can be turned around to hold larger dimension workpieces. *Threaded insert required for mounting!*

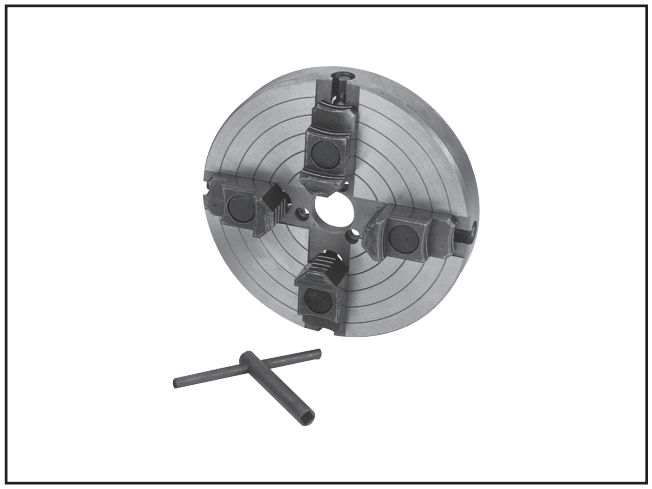


Figure 43. Model G1082 4-Jaw Chuck.

G3163—1" x 8 TPI RH Threaded Insert.
This threaded insert is required to mount a 3- or 4-jaw chuck to your wood lathe.

H7828—Tool Table Plus
The new Tool Table Plus was designed in response to customer requests for a slightly wider and taller table to accommodate small planers, wood lathes, sanders and a variety of other bench-top machines.

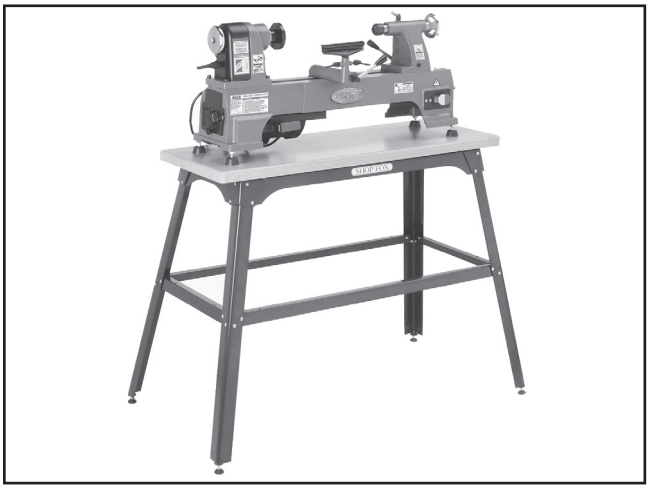


Figure 44. Model H7828 Tool Table Plus.

H6542—Robert Sorby HSS 8-PC Turning Set
G1676—Drill Chuck Arbor MT#2 x JT#3
H6204—Precision Drill Chuck 1/32"–5/8" x JT#3
H3102, H3103, H3104—Gouge Slipstones
H1064—6-PC Deluxe HSS Lathe Chisel Set
G9863—8-PC HSS Lathe Chisel Set
H0507—20" Swan Neck Hollowing Tool
H0508—24" Swan Neck Hollowing Tool

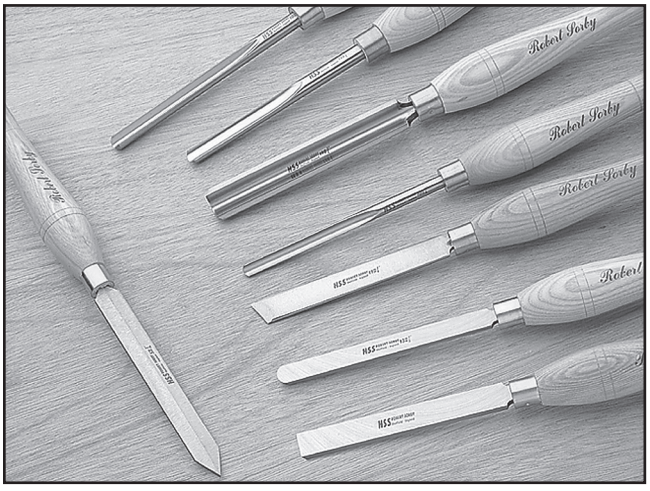
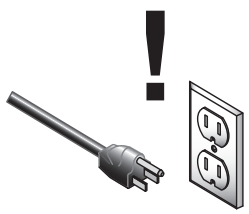


Figure 45. Model H6542 Robert Sorby 8-PC Set.

Call 1-800-523-4777 To Order

SECTION 6: MAINTENANCE



⚠WARNING

Always disconnect power to the machine before performing maintenance. Failure to do this may result in serious personal injury.

Schedule

For optimum performance from your machine, follow this maintenance schedule and refer to any specific instructions given in this section.

Daily Check:
- Loose mounting bolts.
- Worn or damaged wires.
- Worn switch
- Any other unsafe condition.

Monthly Check:
- Belt tension, damage, or wear.
- Clean/vacuum dust buildup off of motor.

Cleaning

Cleaning the Model G0657/G0658 is relatively easy. Vacuum excess wood chips and sawdust, and wipe off the remaining dust with a dry cloth. If any resin has built up, use a resin dissolving cleaner to remove it. Treat all unpainted cast iron and steel with a non-staining lubricant after cleaning.

Unpainted Cast Iron

Protect the unpainted cast iron surfaces on the lathe by wiping them clean after every use—this ensures moisture from wood dust does not remain on bare metal surfaces.

Keep the bed rust-free with regular applications of products like G96® Gun Treatment, SLIPIT®, or Boeshield® T-9.

Lubrication

Lubricate the locations shown in **Figure 46** with light machine oil or G96® Gun Treatment.

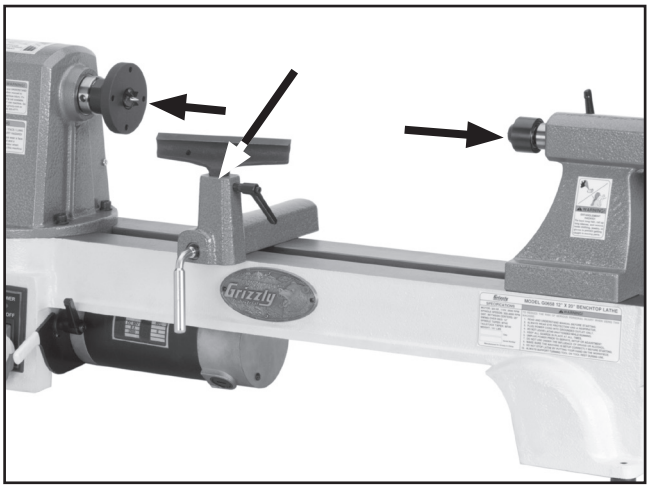
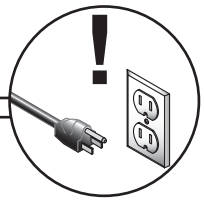


Figure 46. Lubrication locations.

SECTION 7: SERVICE

Review the troubleshooting and procedures in this section to fix or adjust your machine if a problem develops. If you need replacement parts or you are unsure of your repair skills, then feel free to call our Technical Support at (570) 546-9663.

Troubleshooting



Motor & Electrical

Symptom	Possible Cause	Possible Solution
Machine does not start or a breaker trips.	1. Plug/receptacle is at fault or wired incorrectly.	1. Test for good contacts; correct the wiring.
	2. Power supply is at fault/switched ***OFF***.	2. Ensure hot lines have correct voltage on all legs and main power supply is switched ***ON***.
	3. Lockout key is at fault.	3. Install/replace lockout key; replace switch.
	4. Motor ON button or ON/OFF switch is at fault.	4. Replace faulty ON button or ON/OFF switch.
	5. Wiring is at fault.	5. Check for broken wires or disconnected/corroded connections, and repair/replace as necessary.
	6. Motor brushes are worn.	6. Replace brushes.
	7. Motor is at fault.	7. Test/repair/replace.
Machine stalls or is Overloaded.	1. Too much tool pressure.	1. Reduce tool pressure.
	2. Plug/receptacle is at fault.	2. Test for good contacts; correct the wiring.
	3. Motor bearings are at fault.	3. Test by rotating shaft; rotational grinding/loose shaft requires bearing replacement.
	4. Motor brushes are worn.	4. Replace brushes.
	5. Motor has overheated.	5. Clean off motor, let cool, and reduce workload.
	6. Motor is at fault.	6. Test/repair/replace.
Machine has vibration or noisy operation.	1. Motor or component is loose.	1. Inspect/replace stripped or damaged bolts/nuts, and re-tighten with thread locking fluid.
	2. Motor fan is rubbing on fan cover.	2. Replace dented fan cover; replace loose/damaged fan.
	3. Workpiece or center/chuck is at fault.	3. Center workpiece on center/chuck or face plate; reduce RPM; replace defective center/chuck.
	4. Motor bearings are at fault.	4. Test by rotating shaft; rotational grinding/loose shaft requires bearing replacement.

Wood Lathe Operation

Symptom	Possible Cause	Possible Solution
Vibration noise while machine is running; noise changes when speed is changed.	1. Belt cover loose.	1. If necessary, install a soft, vibration dampening material (between the belt cover and the headstock casting.

Symptom	Possible Cause	Possible Solution
Vibration noise while machine is running; noise remains constant when speed is changed.	1. Dented fan cover on motor.	1. Replace or adjust fan cover. Inspect motor fan and replace if damaged.
Motor is running but spindle is not turning.	1. Belt is loose, broken, or has come off pulleys.	1. Inspect belt and tighten, reinstall, or replace if damaged.
Excessive vibration.	1. Workpiece mounted incorrectly. 2. Workpiece warped, out of round, or is flawed. 3. Spindle speed is set too fast for mounted workpiece. 4. Lathe is resting on an uneven surface. 5. Motor mount bolts are loose. 6. Belt is worn or damaged. 7. Spindle bearings are worn.	1. Re-mount workpiece, making sure that centers are embedded in true center of workpiece. 2. Cut workpiece to correct, or use a different workpiece. 3. Reduce the spindle speed. 4. Shim or adjust feet to remove any wobbles. 5. Tighten motor mount bolts. 6. Replace belt. 7. Replace spindle bearings.
Chisels grab or dig into workpiece.	1. Tool rest set too low. 2. Tool rest set too far from workpiece. 3. Wrong chisel/tool being used. 4. Chisel/tool dull.	1. Set tool rest higher. See **Page 26** for how to properly set the tool rest height. 2. Move the tool rest closer to the workpiece. See **Page 26** for the proper workpiece/tool rest clearance. 3. Use the correct chisel/tool; educate yourself by reading books, trade magazines, or seeking help from an experienced lathe operator. 4. Sharpen or replace the chisel/tool you are using.
Bad surface finish.	1. Wrong spindle speed. 2. Dull chisel or wrong chisel being used for the operation.	1. Use trial-and-error to find a better spindle speed. 2. Sharpen chisel or try a different chisel.
Tailstock moves.	1. Tailstock mounting bolt loose. 2. Too much clamping pressure applied by tailstock. 3. Bed surface is oily or greasy.	1. Tighten. 2. Apply less clamping pressure with tailstock. 3. Clean bed surface to remove oil/grease.
Spindle RPM display is not functioning.	1. Spindle RPM sensor is misaligned from sensor ring.	1. Align sensor ring to RPM sensor and set gap to approximately $^{1}/_{16}$".
Can't remove tapered tool from tailstock barrel.	1. Tailstock barrel had not retracted all the way back into the tailstock. 2. Debris was not removed from taper before inserting into barrel.	1. Turn the barrel handwheel until it forces taper out of barrel. 2. Always make sure that taper surfaces are clean.

Changing Belt

To remove the old belt:

1. DISCONNECT LATHE FROM POWER!

2. Release belt tension as described in **Changing Speed Ranges** on **Page 19**, then remove the belt from the lower pulley.

3. Loosen both set screws on the spindle handwheel (**Figure 47**), and turn it clockwise to unthread and remove it.

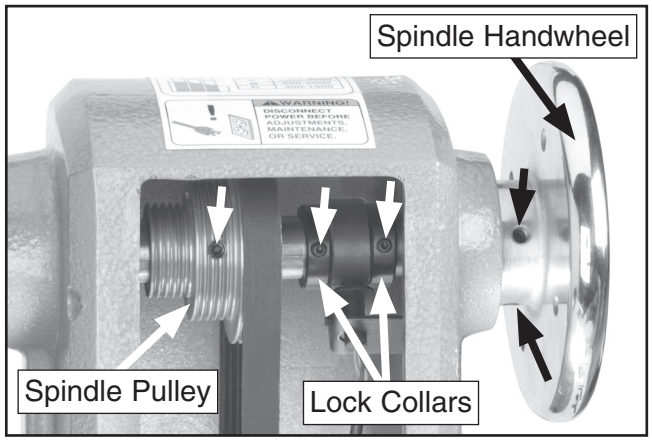


Figure 47 Set screw locations.

4. Loosen the set screw on the spindle pulley and both lock collars (refer to **Figure 47** for set screw locations).

5. Tap the spindle far enough out of the headstock that the belt can be removed. A rubber or wooden mallet may be required. Take care not to damage the spindle threads or to lose parts in the process (**Figure 48**).

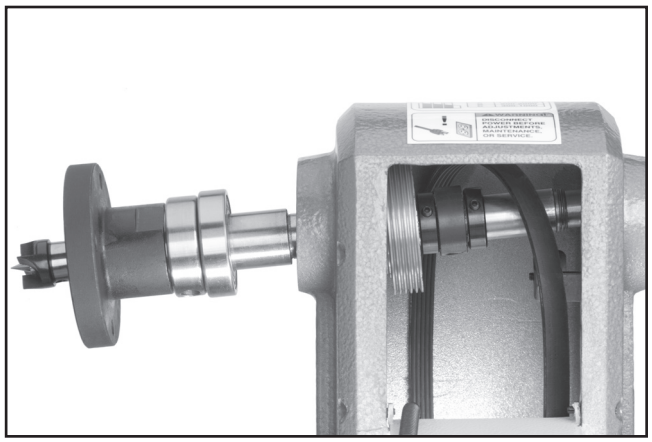


Figure 48. Belt removal.

To install new belt:

1. Place the new belt over the spindle pulley.

2. Slide the spindle back through the headstock and into the original position. A mallet may be required.

3. Install the headlock spindle handwheel and tighten both set screws.

4. Loosely install the belt on the motor pulley in the inner or outermost position.

5. Adjust the spindle pulley position on the spindle shaft to ensure proper belt alignment (**Figure 49**), then tighten the pulley set screw.

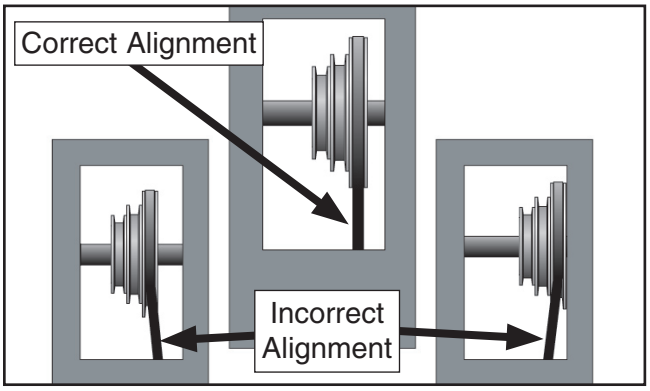


Figure 49. Proper belt alignment.

6. Position the spindle RPM sensor ring in-line with the RPM sensor. Slide the lock collars snug against each side of the sensor ring, then tighten the set screws (**Figure 50**).

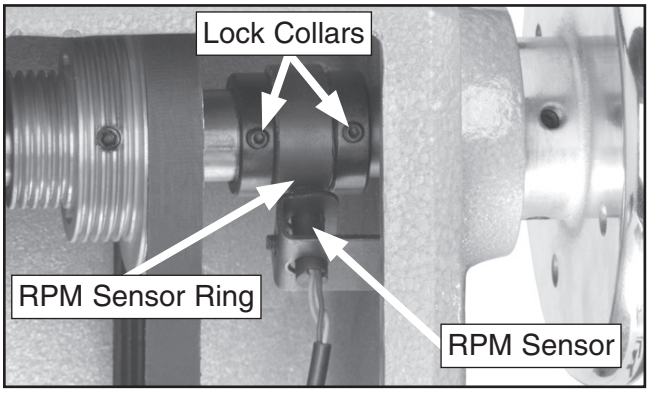


Figure 50. RPM sensor.

7. Complete the new belt installation by following **Steps 6-9** in the **Changing Speed Ranges** procedure on **Page 19**.

Motor Service

Keep the motor as clean as possible. Prevent any water, oil, or wood chips from penetrating inside the motor. Be sure to clean the machine after every use.

The bearings inside the motor are shielded and lubricated for the life of the bearing and require no routine maintenance.

This motor is equipped with long life carbon brushes. However, brush life expectancy is affected by motor loading. Heavy motor loading will result in reduced brush life. Check brushes after every ten to fifteen hours of operation (**Figure 51**).

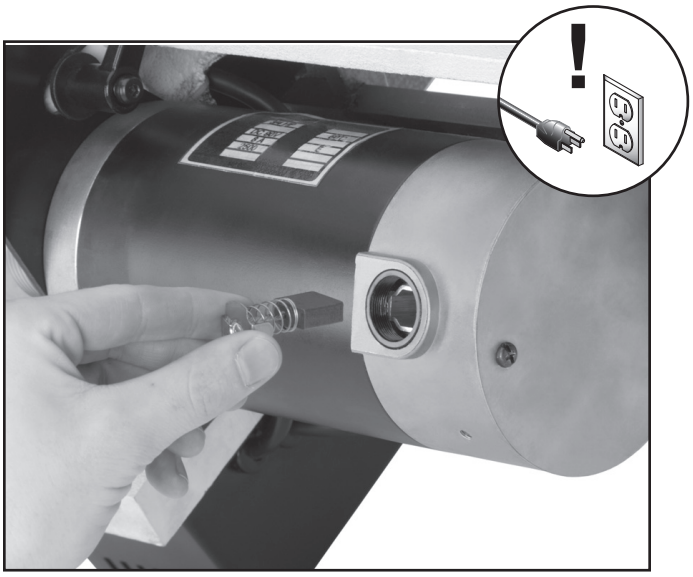
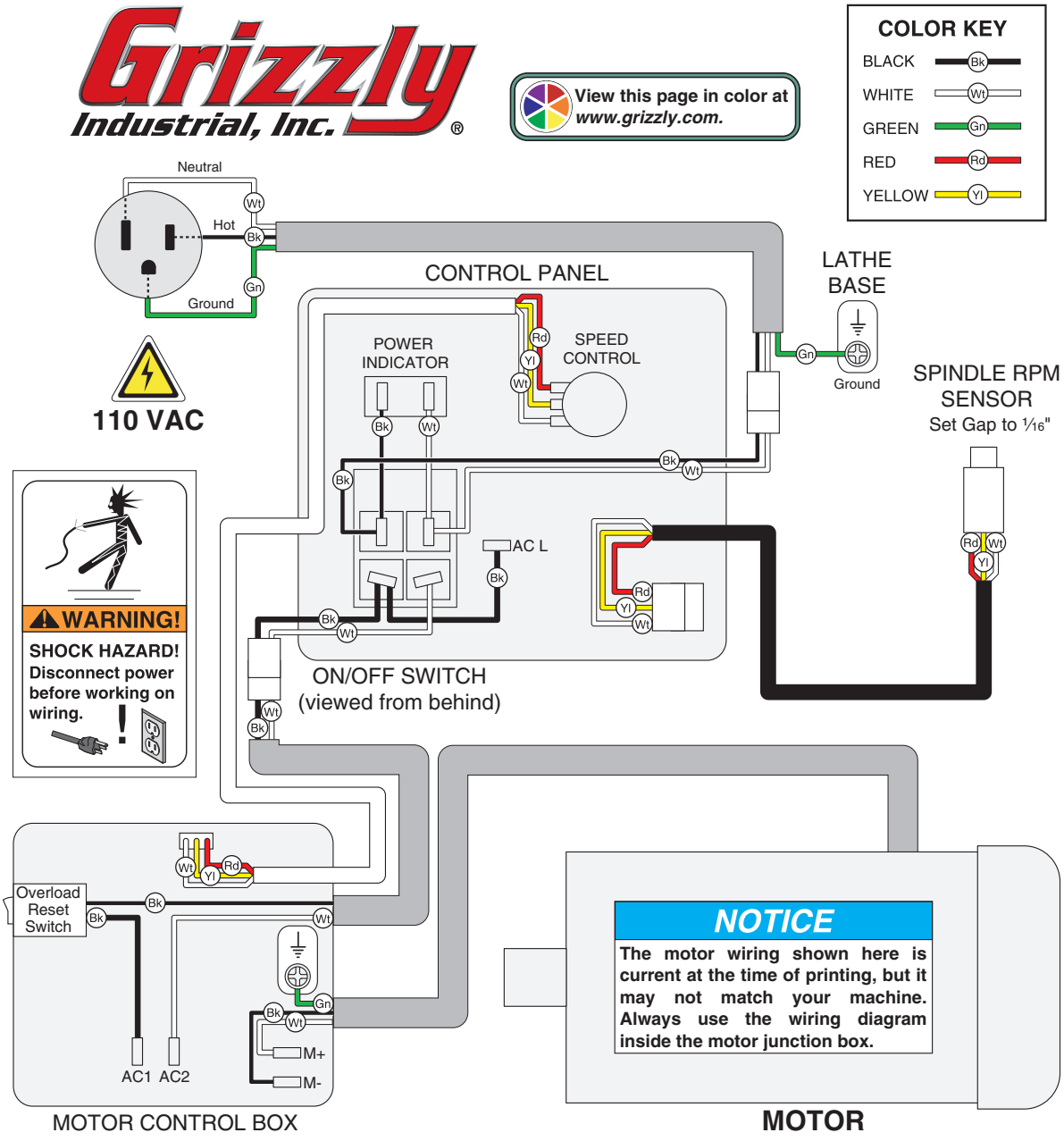


Figure 51. Brush holder location (another brush is located on the other side of the motor from the one shown in this picture).

When the brushes are worn down to ¼" (6mm), it is time for replacement. When checking brushes, be sure to return each brush in the same position that it came from. When replacing old brushes, be sure to replace both brushes at the same time.

G0657/G0658 Wiring Diagram



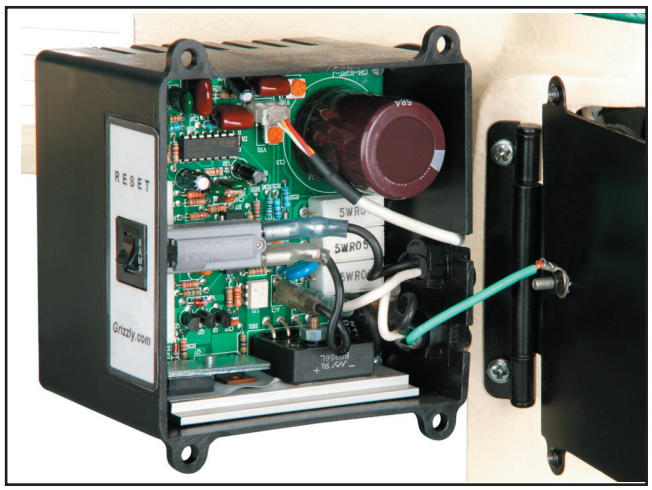


Figure 52. Motor control box wiring.

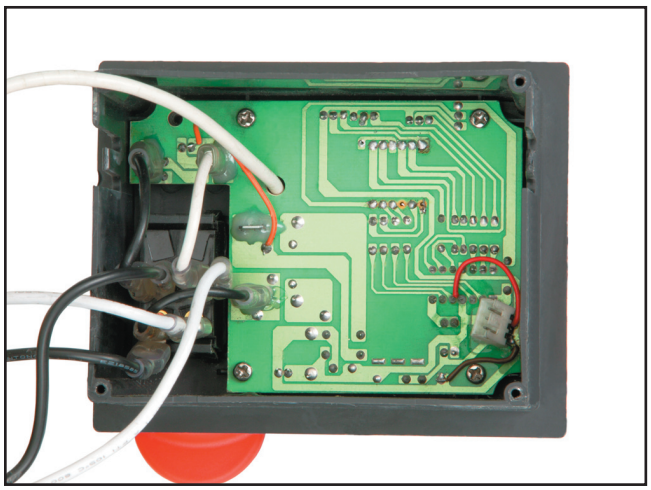
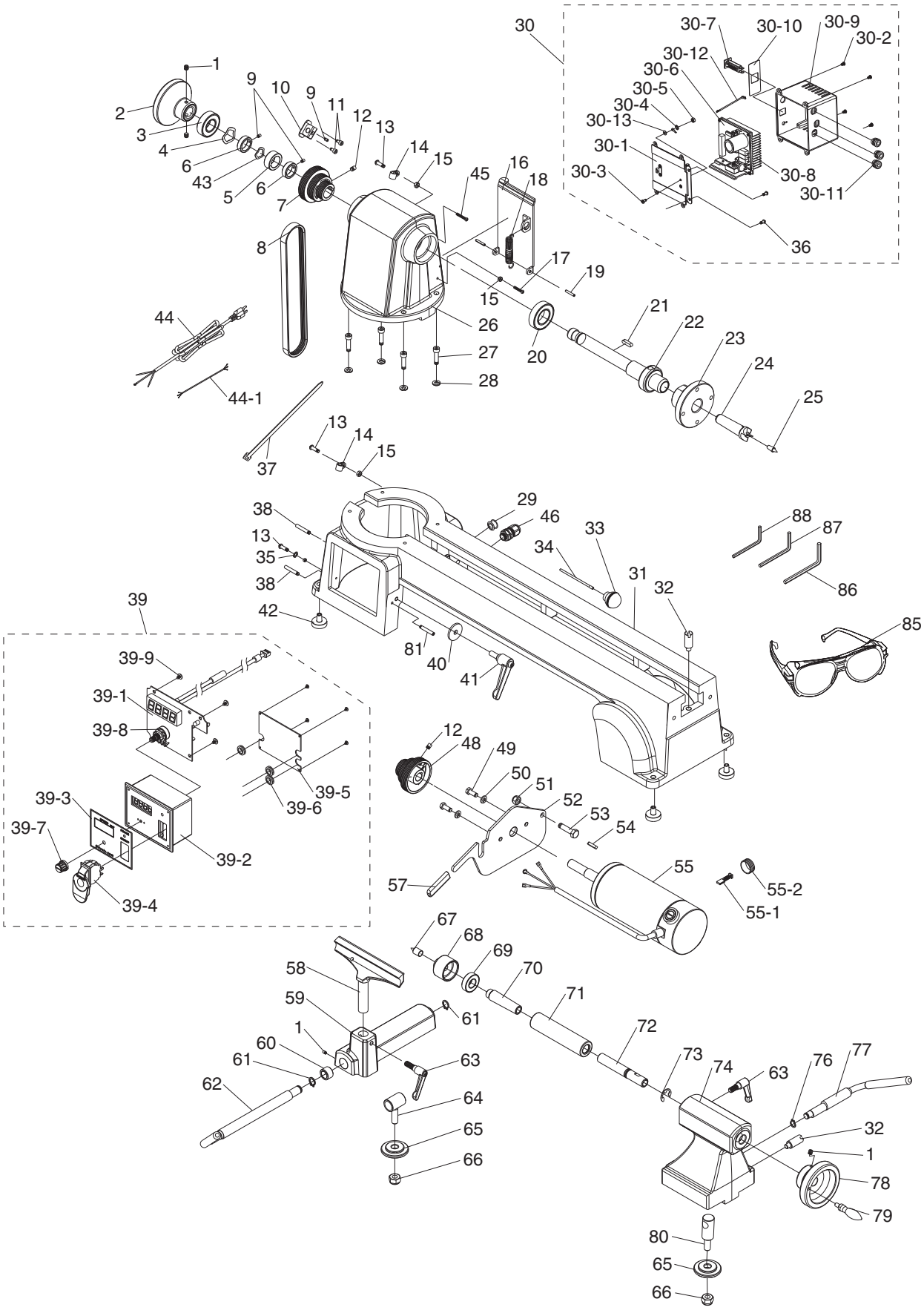


Figure 53. Control panel wiring.

G0657 Main Breakdown



G0657 Main Breakdown Parts List

REF	PART #	DESCRIPTION
1	PSS11	SET SCREW 1/4-20 x 1/4
2	P0657002	SPINDLE HANDWHEEL
3	P6004-2RS	BALL BEARING 6004-2RS
4	P0657004	WAVE WASHER 20MM
5	P0657005	SENSOR RING
6	P0657006	COLLAR
7	P0657007	SPINDLE PULLEY
8	P0657008	RIBBED V-BELT 3/16 X 1/2 X 23
9	PSS02M	SET SCREW M6-1 X 6
10	P0657010	SENSOR BRACKET
11	PSB18M	CAP SCREW M4-.7 X 8
12	PSS79M	SET SCREW M4-.7 X 6
13	PS08	PHLP HD SCR 10-24 X 3/4
14	P0657014	CORD CLAMP
15	PN07	HEX NUT 10-24
16	P0657016	REAR ACCESS COVER
17	PS03	PHLP HD SCR 10-24 X 1
18	P0657018	TENSION SPRING
19	PRP42M	ROLL PIN 3 X 20
20	P60052RS	BALL BEARING 6005-2RS
21	PK34M	KEY 5 X 5 X 20
22	P0657022	SPINDLE
23	P0657023	FACEPLATE
24	P0657024	SPUR CENTER
25	P0657025	CENTER POINTER
26	P0657026	HEADSTOCK
27	PSB06	CAP SCREW 1/4-20 X 1
28	PLW02	LOCK WASHER 1/4
29	P0657029	GROMMET
30	P0657030	CONTROL BOX
30-1	P0657030-1	DOOR PLATE
30-2	PS17M	PHLP HD SCR M4-.7 X 6
30-3	PS06	PHLP HD SCR 10-24 X 3/8
30-4	PTLW01	EXT TOOTH WASHER #10
30-5	PN07	HEX NUT 10-24
30-6	P0657030-6	MOTOR CIRCUIT BOARD
30-7	P0657030-7	OVERLOAD SWITCH
30-8	P0657030-8	HEAT SINK
30-9	P0657030-9	CASE
30-10	P0657030-10	RESET LABEL
30-11	P0657030-11	STRAIN RELIEF

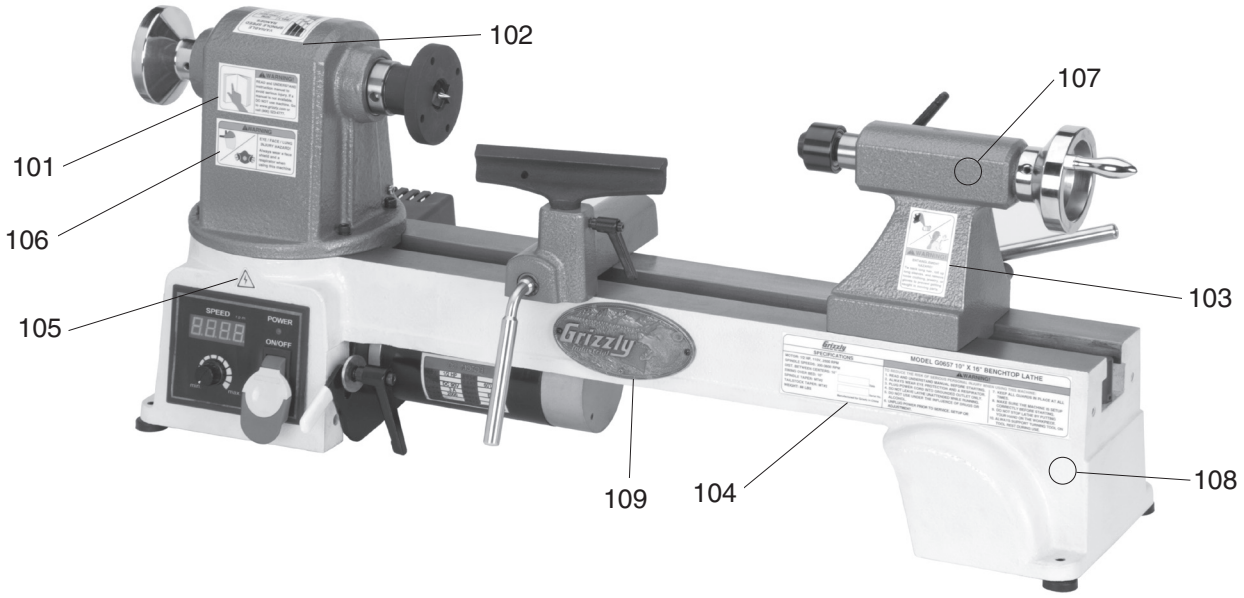
REF	PART #	DESCRIPTION
30-12	P0657030-12	JUMPER WIRE
30-13	PTLW01	EXT TOOTH WASHER #10
31	P0657031	LATHE BED
32	P0657032	END STOP
33	P0657033	KNOCKOUT BAR HANDLE
34	P0657034	KNOCKOUT BAR ROD
35	PTLW01	EXT TOOTH WASHER #10
36	PHTEK4	TAP SCREW 10-24 X 3/8
37	P0657037	ZIP TIE
38	PSS34M	SET SCREW M5-.8 X 16
39	P0657039	ELECTRIC BOX
39-1	P0657039-1	CIRCUIT BOARD
39-2	P0657039-2	CONTROL BOX
39-3	P0657039-3	BOX COVER
39-4	P0657039-4	SWITCH
39-5	P0657039-5	BACK PLATE
39-6	P0657039-6	GROMMET
39-7	P0657039-7	KNOB
39-8	P0657039-8	SPEED CONTROL
39-9	PHTEK4	TAP SCREW 10-24 X 3/8
40	P0657040	SPECIAL WASHER 8MM
41	P0657041	LEVER ASSEMBLY
42	P0657042	LEVELING FOOT
43	P0657043	WAVE WASHER 21MM
44	P0657044	POWER CORD
44-1	P0657044-1	WIRE HARNESS
45	PS08	PHLP HD SCR 10-24 X 3/4
46	P0657046	LARGE STRAIN RELIEF
48	P0657048	MOTOR PULLEY
49	PB02	HEX BOLT 1/4-20 X 5/8
50	PLW02	LOCK WASHER 1/4
51	PLN03	LOCK NUT 5/16-18
52	P0657052	MOTOR PLATE
53	PB12	HEX BOLT 5/16-18 X 1-1/4
54	PK48M	KEY 4 X 4 X 20
55	P0657055	MOTOR 1/2 HP 110V DC
55-1	P0657055-1	MOTOR BRUSH
55-2	P0657055-2	MOTOR BRUSH CAP
57	P0657057	RUBBER HANDLE
58	P0657058	TOOL REST
59	P0657059	TOOL REST BASE

G0657 Main Breakdown Parts List (Cont'd)

REF	PART #	DESCRIPTION
60	P0657060	BUSHING
61	PR03M	EXT RETAINING RING 12MM
62	P0657062	ECCENTRIC ROD
63	P0657063	TOOL REST LOCK HANDLE
64	P0657064	CLAMP BOLT
65	P0657065	CLAMP PLATE
66	PLN05M	LOCK NUT M10-1.5
67	P0657067	CENTER POINT
68	P0657068	LIVE CENTER HEAD
69	P6002	BALL BEARING 6002ZZ
70	P0657070	LIVE CENTER SHAFT
71	P0657071	TAILSTOCK QUILL
72	P0657072	LEADSCREW

REF	PART #	DESCRIPTION
73	PEC12M	E-CLIP 12MM
74	P0657074	TAILSTOCK
76	PR01M	EXT RETAINING RING 10MM
77	P0657077	TAILSTOCK LEVER
78	P0657078	QUILL HANDWHEEL
79	P0657079	HANDWHEEL HANDLE
80	P0657080	TAILSTOCK CLAMP BOLT
81	PSS24M	SET SCREW M5-.8 X 25
85	P0657085	SAFETY GLASSES
86	PAW06M	HEX WRENCH 6MM
87	PAW05M	HEX WRENCH 5MM
88	PAW03M	HEX WRENCH 3MM

G0657 Labels Breakdown & Parts List



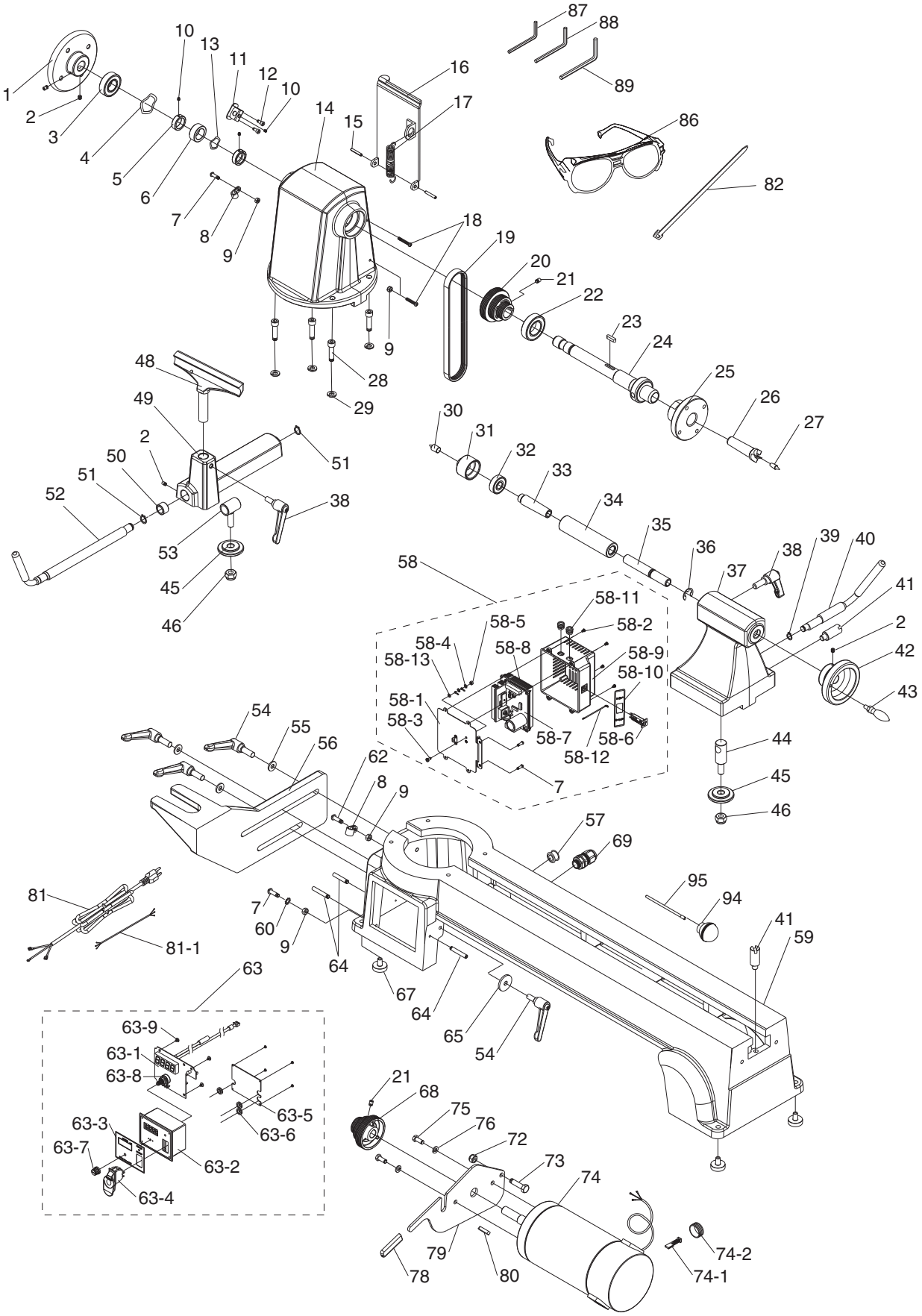
REF	PART #	DESCRIPTION
101	P0657101	READ MANUAL LABEL
102	P0657102	SPINDLE SPEED LABEL
103	P0657103	ENTANGLEMENT HAZARD
104	P0657104	MACHINE ID LABEL
105	PLABEL-14	ELECTRICITY LABEL

REF	PART #	DESCRIPTION
106	P0657106	EYE/FACE/LUNG LABEL
107	PPAINT-1	GRIZZLY GREEN TOUCH UP PAINT
108	PPAINT-11	GRIZZLY PUTTY TOUCH UP PAINT
109	G8588	GRIZZLY NAMEPLATE- SMALL

⚠WARNING

Safety labels warn about machine hazards and ways to prevent injury. The owner of this machine MUST maintain the original location and readability of the labels on the machine. If any label is removed or becomes unreadable, REPLACE that label before using the machine again. Contact Grizzly at (800) 523-4777 or www.grizzly.com to order new labels.

G0658 Main Breakdown



G0658 Main Breakdown Parts List

REF	PART #	DESCRIPTION
1	P0658001	SPINDLE HANDWHEEL
2	PSS11	SET SCREW 1/4-20 X 1/4
3	P6004-2RS	BALL BEARING 6004-2RS
4	P0658004	WAVE WASHER 20M
5	P0658005	COLLAR
6	P0658006	SENSOR RING
7	PS22	PHLP HD SCR 10-24 X 5/8
8	P0658008	CORD CLAMP
9	PN07	HEX NUT 10-24
10	P0658010	SET SCREW M4-.7 X 4
11	P0657010	SENSOR BRACKET
12	P0658012	CAP SCREW 5/32-32 X 3/8
13	P0658013	WAVE WASHER 20MM
14	P0658014	HEADSTOCK
15	PRP42M	ROLL PIN 3 X 20
16	P0658016	REAR ACCESS COVER
17	P0658017	TENSION SPRING
18	PS10	PHLP HD SCR 10-24 x 1-1/2
19	P0658019	RIBBED V-BELT 260J4
20	P0657007	SPINDLE PULLEY
21	PSS03M	SET SCREW M6-1 X 8
22	P60052RS	BALL BEARING 6005-2RS
23	PK34M	KEY 5 X 5 X 20
24	P0658024	SPINDLE
25	P0657023	FACEPLATE
26	P0657024	SPUR CENTER
27	P0657027	CENTER POINT
28	PSB03	CAP SCREW 5/16-18 X 1
29	PLW01	LOCK WASHER 5/16
30	P0657067	LIVE CENTER POINT
31	P0657068	LIVE CENTER HEAD
32	P6002	BALL BEARING 6002ZZ
33	P0657070	LIVE CENTER SHAFT
34	P0658034	TAILSTOCK QUILL
35	P0658035	LEADSCREW
36	PEC12M	E-CLIP 12MM

REF	PART #	DESCRIPTION
37	P0658037	TAILSTOCK
38	P0657063	HANDLE ASSEMBLY
39	PR01M	EXT RETAINING RING 10MM
40	P0657077	TAILSTOCK LEVER
41	P0658041	END STOP
42	P0658042	HANDWHEEL
43	P0658043	HANDWHEEL KNOB
44	P0657080	TAILSTOCK CLAMP BOLT
45	P0657065	CLAMP PLATE
46	PLN05M	LOCK NUT M10-1.5
48	P0657058	TOOL REST
49	P0657059	TOOL REST BODY
50	P0657060	BUSHING
51	PR03M	EXT RETAINING RING 12MM
52	P0657062	ECCENTRIC ROD
53	P0657064	CLAMP BOLT
54	P0657041	LARGE HANDLE ASSEMBLY
55	PW04M	FLAT WASHER 10MM
56	P0658056	OUTBOARD TURNING BRACKET
57	P0657029	POWER CORD GROMMET
58	P0658058	CONTROL BOX
58-1	P0657030-1	DOOR PLATE
58-2	PS17M	PHLP HD SCR M4-.7 X 6
58-3	PS06	PHLP HD SCR 10-24 X 3/8
58-4	PTLW01	EXT TOOTH WASHER #10
58-5	PN07	HEX NUT 10-24
58-6	P0657030-7	OVERLOAD SWITCH
58-7	P0657030-6	MOTOR CIRCUIT BOARD
58-8	P0657030-8	HEAT SINK
58-9	P0657030-9	CASE
58-10	P0657030-10	RESET LABEL
58-11	P0657030-11	SMALL STRAIN RELIEF
58-12	P0657030-12	JUMPER WIRE
58-13	PTLW01	EXT TOOTH WASHER #10
59	P0658059	LATHE BED

G0658 Main Breakdown Parts List (cont'd)

REF	PART #	DESCRIPTION
60	PTLW01	EXT TOOTH WASHER #10
62	P0658062	PHLP HD SCR 10-24 X 7/8
63	P0658063	ELECTRIC BOX
63-1	P0657039-1	CIRCUIT BOARD
63-2	P0657039-2	CONTROL BOX
63-3	P0657039-3	BOX COVER
63-4	P0657039-4	SWITCH
63-5	P0657039-5	BACK PLATE
63-6	P0657039-6	WIRE GROMMET
63-7	P0657039-7	KNOB
63-8	P0657039-8	SPEED CONTROL
63-9	PHTEK4	TAP SCREW 10-24 X 3/8
64	P0658064	SET SCREW M5-.8 X 15
65	PW01M	FLAT WASHER 8MM
67	P0658067	LEVELING FOOT
68	P0657048	MOTOR PULLEY
69	P0657046	LARGE STRAIN RELIEF
72	PLN03	LOCK NUT 5/16-18

REF	PART #	DESCRIPTION
73	PB12	HEX BOLT 5/16-18 X 1-1/4
74	P0658074	MOTOR 3/4 HP 110V DC
74-1	P0658074-1	MOTOR BRUSH
74-2	P0658074-2	MOTOR BRUSH CAP
75	PB83M	HEX BOLT M6-1 X 16
76	PLW03M	LOCK WASHER 6MM
78	P0658078	RUBBER HANDLE
79	P0657052	MOTOR PLATE
80	PK48M	KEY 4 X 4 X 20
81	P0657044	POWER CORD
81-1	P0657044-1	WIRING HARNESS
82	P0658082	ZIP TIE
86	P0658086	SAFETY GLASSES
87	PAW03M	HEX WRENCH 3MM
88	PAW05M	HEX WRENCH 5MM
89	PAW06M	HEX WRENCH 6MM
94	P0657033	KNOCKOUT BAR HANDLE
95	P0657034	KNOCKOUT BAR ROD

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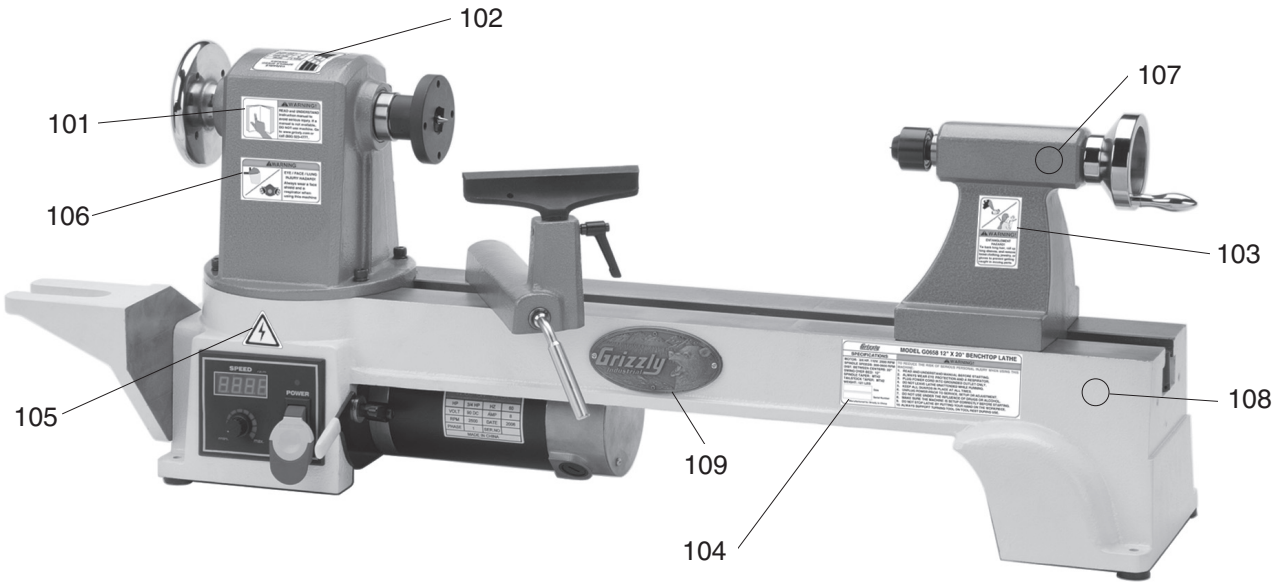

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Grizzly Industrial, Inc. WARRANTY CARD

Name _____

Street _____

City _____ State _____ Zip _____

Phone # _____ Email _____ Invoice # _____

Model # _____ Order # _____ Serial # _____

The following information is given on a voluntary basis. It will be used for marketing purposes to help us develop better products and services. ***Of course, all information is strictly confidential.***

1. How did you learn about us?

____ Advertisement ____ Friend ____ Catalog
____ Card Deck ____ Website ____ Other:

2. Which of the following magazines do you subscribe to?

____ Cabinet Maker
____ Family Handyman
____ Hand Loader
____ Handy
____ Home Shop Machinist
____ Journal of Light Cont.
____ Live Steam
____ Model Airplane News
____ Modeltec
____ Old House Journal
____ Popular Mechanics
____ Popular Science
____ Popular Woodworking
____ Practical Homeowner
____ Precision Shooter
____ Projects in Metal
____ RC Modeler
____ Rifle
____ Shop Notes
____ Shotgun News
____ Today's Homeowner
____ Wood
____ Wooden Boat
____ Woodshop News
____ Woodsmith
____ Woodwork
____ Woodworker West
____ Woodworker's Journal
____ Other:

3. What is your annual household income?

____ $20,000-$29,000 ____ $30,000-$39,000 ____ $40,000-$49,000
____ $50,000-$59,000 ____ $60,000-$69,000 ____ $70,000+

4. What is your age group?

____ 20-29 ____ 30-39 ____ 40-49
____ 50-59 ____ 60-69 ____ 70+

5. How long have you been a woodworker/metalworker?

____ 0-2 Years ____ 2-8 Years ____ 8-20 Years ____ 20+ Years

6. How many of your machines or tools are Grizzly?

____ 0-2 ____ 3-5 ____ 6-9 ____ 10+

7. Do you think your machine represents a good value? _____ Yes _____ No

8. Would you recommend Grizzly Industrial to a friend? _____ Yes _____ No

9. Would you allow us to use your name as a reference for Grizzly customers in your area?
Note: *We never use names more than 3 times.* _____ Yes _____ No

10. Comments: _____

_____

_____

CUT ALONG DOTTED LINE

FOLD ALONG DOTTED LINE

Place
Stamp
Here

GRIZZLY INDUSTRIAL, INC.
P.O. BOX 2069
BELLINGHAM, WA 98227-2069

FOLD ALONG DOTTED LINE

Send a Grizzly Catalog to a friend:

Name_____

Street_____

City_____State_____Zip_____

TAPE ALONG EDGES--PLEASE DO NOT STAPLE

WARRANTY AND RETURNS

Grizzly Industrial, Inc. warrants every product it sells for a period of **1 year** to the original purchaser from the date of purchase. This warranty does not apply to defects due directly or indirectly to misuse, abuse, negligence, accidents, repairs or alterations or lack of maintenance. This is Grizzly's sole written warranty and any and all warranties that may be implied by law, including any merchantability or fitness, for any particular purpose, are hereby limited to the duration of this written warranty. We do not warrant or represent that the merchandise complies with the provisions of any law or acts unless the manufacturer so warrants. In no event shall Grizzly's liability under this warranty exceed the purchase price paid for the product and any legal actions brought against Grizzly shall be tried in the State of Washington, County of Whatcom.

We shall in no event be liable for death, injuries to persons or property or for incidental, contingent, special, or consequential damages arising from the use of our products.

To take advantage of this warranty, contact us by mail or phone and give us all the details. We will then issue you a "Return Number," which must be clearly posted on the outside as well as the inside of the carton. We will not accept any item back without this number. Proof of purchase must accompany the merchandise.

The manufacturers reserve the right to change specifications at any time because they constantly strive to achieve better quality equipment. We make every effort to ensure that our products meet high quality and durability standards and we hope you never need to use this warranty.

Please feel free to write or call us if you have any questions about the machine or the manual.

Thank you again for your business and continued support. We hope to serve you again soon.

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